



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

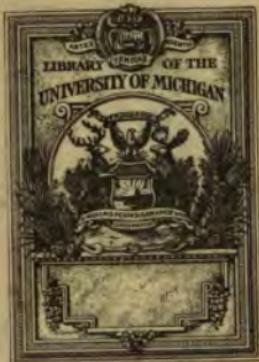
Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



PRESENTED BY
RICHARD HUDSON
PROFESSOR OF HISTORY
1888-1911

$\frac{dI}{dt}$

JA
90
J59

HALF-HOURS AMONG SOME ENGLISH ANTIQUITIES.

BY

LLEWELLYNN JEWITT, F.S.A., ETC.,

EDITOR OF

"THE RELIQUARY ARCHAEOLOGICAL JOURNAL AND REVIEW,"

AUTHOR OF "GRAVE MOUNDS AND THEIR CONTENTS,"

"THE CERAMIC ART IN GREAT BRITAIN," "LIFE OF JOSIAH WEDGWOOD,"

"LIFE OF WILLIAM HUTTON," ETC.

ILLUSTRATED WITH THREE HUNDRED ENGRAVINGS.



LONDON:
HARDWICKE AND BOGUE, 192, PICCADILLY.

1877.

(All rights reserved.)

LONDON:
PRINTED BY WILLIAM CLOWES AND SONS,
STAMFORD STREET AND CHARING CROSS.

13 Oct. 11-1888.

TO MY DEAR FRIEND,
AND
ZEALOUS CO-LABOURER IN THE FIELD OF ARCHAEOLOGY,
THE BARON NICOLAS CASIMIR DE BOGOU SCHEF SKY,
AN ENLIGHTENED ANTIQUARY, A PROFOUND SCHOLAR,
AND A CAREFUL HISTORIAN,
WHOSE RESEARCHES, WHILE DOING MUCH TO POPULARIZE THE
STUDY OF ANTIQUITIES IN THE NATION TO WHICH
HE IS AN ORNAMENT,
HAVE TENDED MATERIALLY TO ILLUSTRATE THOSE OF
OUR OWN COUNTRY,
I dedicate this little Work
AS A MARK OF SINCERE AND AFFECTIONATE ATTACHMENT.

LLEWELLYNN JEWITT.

WINSTER HALL, DERBYSHIRE,
November, 1876.

225218



INTRODUCTION.

IN preparing this little manual I have endeavoured so to popularize the subjects treated upon in its several chapters as to prevent them becoming "dry" or wearisome to the reader. While thus endeavouring to make them acceptable to the younger student, however, my object has been to impart such a tone to the "half-hours" as will make the volume acceptable to those of more matured study, to whom it may, I trust, serve as a text-book for occasional reference.

As a study, that of antiquities yields to no other in fascination, in interest, in importance, and in value; and it is impossible to give it too much encouragement. It has been well remarked, and may be accepted as a truism, that "he who would comprehend the present and divine the future *must* take his lessons from the past;" and therefore it is well by every means in one's power to foster

and promote and extend that study. The present, indeed, may be looked upon as a mirror, in which the history and the events of past times are vividly reflected, and from which they, with those of our own days, may be thrown forward into the dim future so as to shape the course of ages to come. I trust that these brief sketches of a few of the subjects into which the study is divided may be the means of creating in some minds, and of assisting to develop and extend in others, a love for antiquity, and a desire to enter into archæological researches ; and I shall hope to follow it with other "half-hours" devoted to other and equally interesting branches. I have, by the aid of numberless engravings, sought to convey information in a more tangible and lasting form than could be done by description alone. To all who have in this matter aided me in my endeavours I beg to express my thanks.

LLEWELLYNN JEWITT.

WINSTER HALL, DERBYSHIRE,
November, 1876.

CONTENTS.



CHAPTER		PAGE
I. AMONG BARROWS	...	1
II. AMONG STONE CIRCLES, CROMLECHS, ETC.	...	14
III. AMONG IMPLEMENTS OF FLINT AND STONE	...	30
IV. AMONG CELTS AND OTHER EARLY INSTRUMENTS OF BRONZE	...	48
V. AMONG ROMAN ROADS, TOWNS, AND VILLAS; TESSEL- LATED PAVEMENTS, TEMPLES, ALTARS, SEPULCHRAL INSCRIPTIONS, MINING OPERATIONS, ETC.	...	62
VI. AMONG ANCIENT POTTERY	...	79
VII. AMONG ARMS AND ARMOUR	...	102
VIII. AMONG SEPULCHRAL SLABS AND BRASSES, ETC.	...	114
IX. AMONG COINS	...	137
X. AMONG CHURCH BELLS	...	149
XI. AMONG GLASS, STAINED GLASS, ENCAUSTIC TILES, TAPESTRY, ETC.	...	179
XII. AMONG PERSONAL ORNAMENTS	...	203
INDEX	...	235

LIST OF ILLUSTRATIONS.

FIG.		PAGE
1. Section of Barrow, Elk Low, Derbyshire ...	...	3
2. " " near Newhaven, Derbyshire ...	...	4
3. " " Bee Low, Derbyshire ...	...	4
4. " " Broad Down, Devonshire ...	...	5
5. " " Gib Hill, Derbyshire ...	...	6
6. Plan of Chambered Tumulus, Stony Littleton ...	...	7
7. " " New Grange ...	...	7
8. " " Long Low, Wetton ...	...	8
9. " " Gavr Innis ...	...	8
10. Arbor Low, Derbyshire ...	...	15
11. " Nine Ladies," Stanton Moor, Derbyshire ...	...	15
12. Boscawen-ûn, Cornwall ...	...	15
13. Relative Sizes of Stone Circles ...	...	20
14. Plan of Barrow, Morvah Hill, Cornwall ...	...	21
15. " Broad Down, Devonshire ...	...	22
16. " " " Nine Ladies," Stanton Moor, Derbyshire ...	...	24
17. Wall of Circle ...	...	25
18. Stone Circle, Isle of Man ...	...	26
19. " Trewavas Head, Cornwall ...	...	26
20. " St. Just, Cornwall ...	...	26
21. " Sancreed, Cornwall ...	...	26
22. " Mule Hill, Isle of Man ...	...	26
23. " Gulval, Cornwall ...	...	26
24. " Channel Islands ...	...	26
25. Wall of Circle ...	...	28

LIST OF ILLUSTRATIONS.

ix

FIG.

		PAGE	
26.	Stone Circle, Boscawen-ûn	...	28
27.	“ “ Aber	...	28
28.	“ “ Penmeanmawr	...	29
29.	The Lanyon Cromlech, Cornwall	...	29
30—34.	Stone Celts	...	34
35, 36.	“ Hammers, Llanmadoc	...	36
37.	“ “ Cambridgeshire	...	37
38.	“ “ Dorsetshire	...	37
39.	“ “ Winster, Derbyshire	...	37
40.	“ “ Danby Moor, Yorkshire	...	37
41—43.	“ Mauls, Royal Irish Academy	...	37, 38
44.	Implement, Mickleover, Derbyshire	...	39
45.	“ “ (showing mode of use)	...	39
46.	“ “ Mennithorpe, Yorkshire	...	40
47, 48.	Flint Implements, Danby Moor, Yorkshire	...	41
49—53.	“ “ Derbyshire	...	41
54.	“ “ Green Low, Derbyshire	...	42
55.	“ “ Danby Moor, Yorkshire	...	42
56, 57.	“ “ Calais Wold “	...	43
58.	“ “ Gunthorpe “	...	43
59.	“ “ Derbyshire	...	43
60, 61.	“ “ Calais Wold, Yorkshire	...	43
62—67.	“ “ from Derbyshire	...	44
68.	Spindle-whorl, Derbyshire	...	46
69—72.	Bronze Celts, Museum of the Royal Irish Academy	...	49
73—81.	Various Forms of Bronze Celts, from the Museum of the Royal Irish Academy	...	52
82—94.	Various Bronze Implements, from the Mayer Museum, Liverpool	...	54
95.	Socketed Celt, Kirk Ireton, Derbyshire	...	57
96.	“ “ Broad Down, Devonshire	...	57
97.	Square Celt, Derbyshire	...	57
98.	Gouge-shaped Celt, Derbyshire	...	57
99.	Spiked Instrument, Derbyshire	...	57
100.	Bronze Dagger, Bottisham Fen, Cambridgeshire	...	59
101.	“ Sword, Ireland	...	60
102.	“ Spear-head, Hartshay, Derbyshire	...	61
103.	“ “ Little Chester “	...	61

FIG.		PAGE
104.	Roman Masonry, Colchester	62
105.	Tessellated Pavement (Diana and Actæon), Leicester	68
106.	Roman Altar, Housesteads, on the Roman Wall	71
107.	" " Bath	71
108.	" " Haddon Hall, Derbyshire	71
109.	Deæ Matres, Ancaster, Lincolnshire	73
110.	Roman Sepulchral Stone, Cirencester	77
111.	" " Roman Wall	77
112.	" Fulgor Divum" Stone, Hunnum	78
113.	Celtic Pottery, Norwich Museum	81
114.	" Cornwall	82
115.	" Cinerary Urn, Uttoxeter	82
116.	" Drinking Cup, Monsal Dale, Derbyshire	84
117—119.	Immolation Urns, Yorkshire	84
120.	" " Dorsetshire	84
121.	Celtic Food Vessel, Hitter Hill, Derbyshire	86
122.	Fimber, Yorkshire	86
123—125.	Samian Ware Bowls	87
126—132.	Examples of Samian Ware, etc., Museum of Practical Geology	89
133—135.	Roman Potters' Marks	90
136—150.	Roman Pottery from the Upchurch Marshes, Kent	91, 92
151.	Roman Potter's Kiln, Caistor, Northamptonshire	93
152—154.	Durobrivian Ware, Museum of Practical Geology	94
155—157.	" Headington, Oxfordshire	94
158.	" A Stag-hunt	94
159—163.	Roman Pottery, Leicester	95
164—174.	" New Forest, Hampshire	97
175—183.	Anglo-Saxon Cinerary Urns, Norwich Musuem	99
184.	Pottery, from Illuminated MS., 12th century	101
185.	Anglo-Saxon Helmet, Benty Grange, Derbyshire	103
186.	Cross	104
187, 188.	" Buckles, from Kentish Barrows	107
189.	Interment, Barlaston, Staffordshire	108
190, 191.	Umbones of Shields	108
192—208.	Spears, Knives, etc., from Kentish Barrows	108, 109

FIG.		PAGE
204.	Anglo-Saxon Sword	109
205.	Umbone of Shield, Tissington, Derbyshire	110
206.	Sepulchral Slab, Lismore, Ireland	117
207, 208.	Slabs, Darley Dale, Derbyshire	123
209.	„ Alvaston, Derbyshire	123
210.	„ Darley Dale, Derbyshire	123
211.	„ Alvaston, Derbyshire	123
212.	Slab, Hartington, Derbyshire	123
213, 214.	„ Darley Dale, Derbyshire	123, 125
215.	„ Wentworth, Yorkshire	125
216—220.	Ancient British Coins, Mount Batten, Ply- mouth	139, 140
221, 222.	Anglo-Saxon Coins	143
223, 224.	Pennies of William I. or II.	147
225.	Penny of Edward I.	147
226.	Angel of Henry VI.	147
227.	Shilling of Henry VII.	147
228.	Quarter-Noble of Henry IV.	147
229.	Gold Penny of Henry III.	147
230.	Bells and Musical Instruments, from an Illuminated MS.	152
231.	Anglo-Saxon Bell	152
232, 233.	Examples of Bell Lettering, Devonshire	157
234.	„ „ „ Elton, Derbyshire	157
235.	„ „ „ Bonsall	157
236.	Bell Founders' Marks, Baslow, Derbyshire	159
237.	„ „ (John Draper)	159
238.	„ „ Derbyshire	159
239.	„ „ Appleby, Derbyshire	159
240.	„ „ Derbyshire (R. Heathcote)	159
241.	„ „ (William Foundor)	159
242.	Bell Ornament, Devonshire	160
243.	„ „ Duffield, Derbyshire	160
244.	„ „ Morley	160
245.	„ „ Devonshire	160
246.	„ „ Morley, Derbyshire	160
247.	„ „ Brassington, Derbyshire	160
248.	Imperforate Bead, Adderbury, Oxfordshire	180

FIG.		PAGE
249.	Glass Bead, Glutton, Derbyshire ...	181
250.	, , Hoylake, Cheshire ...	181
251.	Sepulchral Glass Bottle, Bartlow Hills ...	181
252.	Roman Interment, Avisford, Sussex ...	181
253.	Roman Glass Bowl, Leicester ...	182
254—266.	Examples of Anglo-Saxon Glass Vessels ...	183
267.	Anglo-Saxon Ale Glass, from an Illuminated MS. ...	185
268.	Jet Necklace, Middleton Moor, Derbyshire ...	204
269.	Celtic Interment , , ...	205
270.	Amber and Glass Necklace, Wyaston, Derbyshire ...	207
271, 272.	Earrings, Kentish Barrows ...	209
273.	Bone Pins, Darley Dale, Derbyshire ...	212
274.	Jet Stud, Rudstone, Yorkshire ...	212
275.	, Calais Wold, Yorkshire ...	213
276.	Fibula, Bottisham, Cambridgeshire ...	214
277.	, Scarborough, Yorkshire ...	214
278.	, Royal Irish Academy ...	214
279.	, Little Chester, Derbyshire ...	214
280.	, from the Mayer Museum ...	215
281—290.	Fibulæ from Kentish Barrows ...	216
291, 292.	, Winster, Derbyshire (front and back view) ...	216
293.	, from Kentish Barrows ...	216
294.	, Hoylake, Cheshire ...	217
295.	, from the Ashmolean Museum, Oxford ...	220
296.	, found in Westmoreland ...	221
297.	Armlets, Middleton Dale, Derbyshire ...	224
298.	Torques ...	225
299.	, Needwood Forest, Staffordshire ...	227
300.	Comb ...	229
301, 302.	Girdle Ornaments ...	230
303.	Tweezers, Leicester ...	231
304.	Bucket, found in Northamptonshire ...	232

HALF-HOURS AMONG SOME ENGLISH ANTIQUITIES.

CHAPTER I.

AMONG BARROWS.

THE remains of the Ancient British, or Celtic, period which have come down to us, consist in the main of barrows, stone circles, pottery, implements of flint and of stone, weapons and ornaments of gold and bronze, and various articles in bone and jet, etc. To each of these classes I purpose devoting a few pages, so as to give a general insight into the remains of that, and subsequent, periods of our early history. It is not my province to speak of the different races who have inhabited our land, nor of their habits or modes of life, their history or their progress in the arts and in civilization, but of those remains only which time has spared, and which we see around us at the present hour.

First, then, as to the barrows, which, it may be well to remark, are grave-mounds, or sepulchral tumuli, and are known in different districts as "barrows," "lows," "tumps," "cairns," "houes," etc. They belong to the three great periods of our history, the Celtic, the Romano-British, and the Anglo-Saxon ; and although each of these bears a very close general resemblance to the others, there are certain differences in detail that are observable to the practised eye, and their contents, of course, vary considerably.

The barrows of the Celtic period, as I have on a former occasion written,* vary in their form and size as much as they do in their modes of construction, and in their contents. "Sometimes they are simply mounds of earth raised over the interment ; sometimes heaps of stones piled up over the body ; and sometimes, again, a combination of cist and earth and stone. Generally speaking, the mounds are circular, rising gradually and gently from the level of the ground towards the centre, but in some instances the rise is somewhat acute. Now and then they are oval in form. Where elliptical barrows occur (generally known as 'long barrows') they are, I have reason to believe, not matters of original design, but of accident, through additional interments ; and I much doubt the propriety of archæologists, at the present day, continuing the very questionable nomenclature adopted by Sir R. C.

* "Grave-Mounds and their Contents."

Hoare and others. In some cases, however, as in the instances of chambered or walled tumuli, the elliptical form of the barrow can be easily understood. An examination of a very large number of barrows leads me to the opinion that the original form of all was circular, and that no deviation from that form, and no difference in section, can be taken as indicative of period or of race. Another appellation occasionally used, that of 'twin barrows,' is further evidence of this—two interments having been made within a short distance of each other, and the mounds raised over them running into and joining each other. It may, however, for purposes of description, and for this alone, be well to retain the names, while discarding much of the theory and of the system which has been attempted to be established regarding them."

Their form and construction will be best understood by reference to the sections. Fig. 1 shows a mound, or cairn, of stones raised over the body,



Fig. 1.

which is simply laid in the usual doubled-up or contracted position; the outer edge of the circle being formed of rough slabs of stone laid one on another, with their upper ends sloping inwards.

The body in this instance was simply laid on the natural surface of the ground.

The next figure (Fig. 2) shows another barrow of stone, whose circle is defined by a ring of large stones, raised over two interments (both by in-



Fig. 2.

cremation), one of which is a cinerary urn (*a*), containing the burnt remains of the dead, covered with a slab of stone; and the other simply the burnt bones and ashes collected into a heap on the surface of the ground (*b*).

The next is a similar arrangement, but in this instance the urn containing the ashes is, as was frequently the case, inverted; the outer circle is,

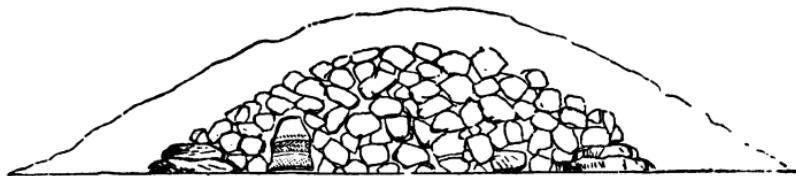


Fig. 3.

as before, defined by large stones. In all these cases the mound of loose stones had been formed over the interment, and then over this had been spread a thick layer of earth.

It must not be supposed, however, that the covering with earth was in all instances, or even in many, a part of the original design, for frequently this accumulation of soil is simply the result of decaying vegetation, and of other natural causes. In some of the instances I have given there is abundant evidence, from the remains of fires on the surface, that the earth was part of the original design. This is clearly evident from the next section (Fig. 4), where *a a* show the stones forming

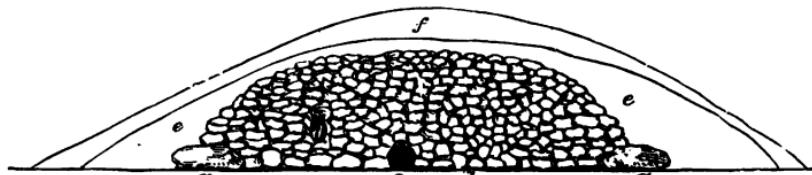


Fig. 4.

the boundary circle ; *c*, a cinerary urn ; *d*, a drinking cup ; *b*, the cairn of stone ; *e e*, a thick covering of burnt earth and charcoal ; and *f*, the outer or natural coating of earth.

Sometimes very extraordinary examples occur, showing successive interments at different periods, and, not unfrequently, by different races. In the Gib Hill barrow (shown in Fig. 5), four mounds of tempered earth, almost like clay, had been formed on the natural surface of the ground, and over these, and entirely enclosing them (see the dotted lines in the section), was raised a huge barrow, having in its upper portion a stone cist, in appearance like a

diminutive so-called cromlech. Another remarkable example was examined by Mr. Warne, and is engraved in his admirable work. This mound was eighty-two feet in diameter, and fourteen feet in height in the centre. The primary interment, an

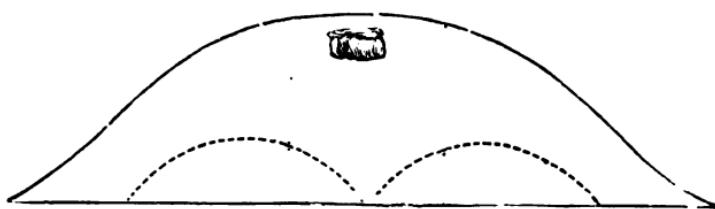


Fig. 5.

urn, was placed in a cist cut in the chalk subsoil, and over the urn was raised a small cairn of flints. The cist was then filled in, and raised a little above the surface with chalk rubble. Over this was a layer of earth, upon which an interment had taken place, which in its turn was covered with a thick layer of chalk rubble, in the centre of which, in a cist, another interment had again been made. Above this rose another layer of earth three feet thick, another of chalk two feet thick, and then a final one of earth three feet in thickness; on each of these interments had at different periods been made. Thus the tumulus, which was formed of alternate layers of chalk and earth, exhibited no less than six successive sepulchral deposits. The interments were both by inhumation and cremation.

Barrows were, it will have been seen, frequently

surrounded by a circle of stones, set upright in the ground. These circles, in many instances, remain to the present day in different parts of the kingdom, and (the barrow itself having disappeared) are commonly called "Druidical circles." The construction of the stone circles varied considerably. In some instances the upright stones were pretty close together, in others wide apart; and in others, again, the spaces between the uprights were filled in with rude loose rubble-masonry, which thus formed a continuous wall. Of these I shall speak in another chapter.

Some tumuli contain stone chambers and passages, formed of massive upright slabs, and covered



Fig. 6.



Fig. 7.

with immense blocks of stone, and over these passages and chambers the mound has been raised. Among the more notable of chambered tumuli in

England may be mentioned those of Stony Littleton; Wieland Smith's Cave at Ashbury; and

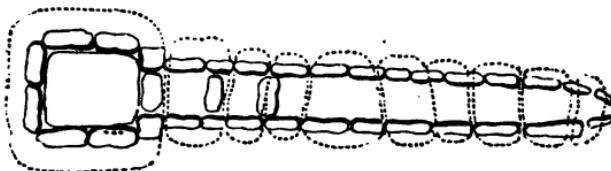


Fig. 8.

Mining Low. The plans (Figs. 6 to 8) show their construction.

Some barrows, from peculiarity of construction, are known as "long barrows" and as "twin barrows." A remarkable example is here shown.

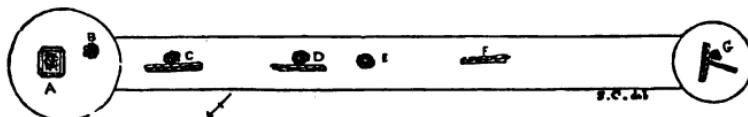


Fig. 9.

It consists of two circular mounds, connected by a bank. The circular mound at the north-east end is thirty yards across and seven feet high in the centre, that at the south-west end not so large; the connecting bank at its base is fifteen yards wide, and, where entire, about six feet in height, with regular sloping sides where not mutilated. The barrow runs in a straight line along the highest part of the land. Its internal construction is singular. By making holes in various places along the bank, a low wall, built with large stones, was found in the centre; it

appeared to be carried the whole length of the bank. Against this, large flat stones, with their tops reclining against the wall, are placed. The portions of this which were laid bare are, with remains of interments, shown at C, D, E, and F. A large cist, or chamber, was discovered near the centre of the large mound at A. It was formed by four immense stones, inclosing an area six feet long, five feet wide, and about four feet deep. In all probability the capstone had been removed, as none was found. On the cist being cleared, a regular paved floor of limestone, entirely covered with a confused mass of human bones, was discovered.

An elliptical barrow, called Ringham Low, on being opened in the centre disclosed seventeen interments, and probably an equally large number remain in the undisturbed parts.

The barrows of the Romano-British period sometimes, as at Eastlow Hill, contained sepulchral chambers of large size. These were occasionally built above the ground, and then covered with the mound. At other times a simple mound over a grave, or over a sepulchral urn or other deposit, was raised. Frequently, however, the Roman placed his dead, when the burial took place in the open country, in the barrow of the ancient Briton, and thus both periods—the primary being the Celtic, and the secondary the Romano-British—are represented in the same mound. Not unfrequently the Roman interment was made in a shallow grave,

sometimes in a cist composed of stones, or tiles, or wood, and over this the barrow was raised ; this was usually of compact earth, or of earth and stones.

The barrows of the Anglo-Saxon period were usually of much less size in diameter, and lower in altitude than those of the Celtic period—so low in fact, that they frequently rise but slightly above the surrounding land. In some districts they are found in extensive groups, often occupying elevated sites ; at other times they are solitary, and commonly the elevation above the surrounding surface is so slight as to be scarcely perceptible except to the most practised eye. Fortunately the mounds and cemeteries are particularly rich in remains, and thus enable us to form a clearer idea of the habits, and manners, and lives of our Saxon forefathers than we can of their predecessors. In Kent, Sussex, and the Isle of Wight, Saxon graves abound on the Downs ; and in Derbyshire, Oxfordshire, Gloucestershire, Northamptonshire, Lincolnshire, Cambridgeshire, Suffolk, Norfolk, and Yorkshire, cemeteries of more or less extent and importance exist, with here and there a solitary barrow, or a group of barrows. Like their Roman predecessors, the Anglo-Saxons, to some extent, took possession of, and buried in, the grave-mounds of the ancient Britons, and it is not a very unusual occurrence to find, overlying the primary deposit, an interment of the Saxon period ; indeed, in some

instances, the primary interment is Celtic, the secondary Roman, and a later still is Saxon, all in the same mound.

Fortunately, an early Anglo-Saxon poem, recounting the adventures of the chieftain Beowulf, is preserved to us, and gives us a valuable and highly graphic and interesting description of the ceremonies attendant on his burial; the lighting of the funeral pyre, the burning of the body of the hero, the raising of the mound over his remains, and the articles placed beside him in his last home. Dying, he—

bæð þær ge ge-pohhton
wæf-ten pinej wæd vñ
in bæl-ryceve
beonh þone heán
mæcelne anu mæjne.—

which is translated:—

“he bad that ye should make,
according to the deeds of your friend,
on the place of the funeral pyle,
the lofty barrow
large and famous.”

His request was carried out, the funeral pile raised, and every preparation befitting his deeds was made. The pile was—

“hung round with helmets,
with boards of war,*
and with bright byrnies †
as he had requested.

* Shields.

† Armour.

Then the heroes, weeping,
laid down in the midst
the famous chieftain,
their dear lord.
Then began on the hill,
the warriors, to awake
the mightiest of funeral fires ;
the wood-smoke rose aloft
dark from the fire ;
noisily it went
mingled with weeping.”

The body of the hero having been consumed by the wood-fire, in the midst of weeping friends, the people began to raise the barrow over his ashes. This mound—

“ was high and broad,
by the sailors over the waves
to be seen afar.
And they built up
during ten days
the beacon of the war-renowned.
They surrounded it with a wall
in the most honourable manner
that wise men
could desire.
They put into the mound
rings and bright gems,
all such ornaments
as before from the hoard
the fierce-minded men
had taken ;
they suffered the earth to hold
the treasure of warriors,
gold on the earth,
where it yet remains
as useless to men
as it was of old.”

When the burial was simply by inhumation, the body appears usually to have been placed in a shallow grave, over which the mound was raised. The graves were of rectangular form, and of various depths. Sometimes the body was enclosed in a wooden chest or coffin before being placed in the grave; in either of these cases it was then filled in—usually with a tempered or “puddled” earth, which formed a close and extremely compact mass—and the mound raised over it. This mound, or hillock, was called a *hlæw*, or a *beorh*, *beorgh*, or *bearw*, from the first of which the name now commonly used, *low*, is derived, and from the latter the equally common name *barrow* originates.

CHAPTER II.

STONE CIRCLES, CROMLECHS, ETC.

CIRCLES formed of upright or other stones exist in various parts of the kingdom, and are popularly known as "Druidical circles," "Druids' circles," "Druid temples," "Druid stones," etc. They vary considerably in their size and characteristics, and many singular beliefs and stories are connected with them in different districts. In some places they are looked upon as the abodes of fairies, who are said there to sit in solemn conclave, and there, too, to hold their high festivals. In other places "Hob Hurst," or "Hob i'th' Hurst," is firmly believed to haunt, and live in, these circles (and also in some barrows), and this belief is so strong in the rustic mind that people will not, for fear of harm, pass them at certain hours—"Hob" being said to be a spiteful sprite who delights in doing mischief alike to man and to beast.

The bases of grave-mounds were frequently defined by these circles of stones, and sometimes by a



Fig. 10.—Arbor Low.



Fig. 11.—"Nine Ladies," Stanton Moor.

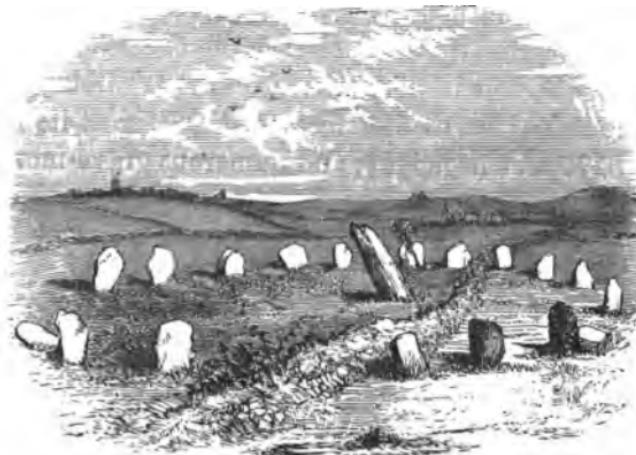


Fig. 12.—Boscawen-ûn.

shallow ditch or fosse, and occasionally by a combination of both. To this circumstance the origin of many of the circles remaining to this day is to be traced, while there can be but little, if any, doubt that others of far larger dimensions, and of different construction, have originally also been connected with sepulchral purposes and rites. A few words on the plans and dimensions of some of the larger structures, without at all entering into the question of their various uses, will be serviceable for comparison.

Abury, the largest of our English circles, appears originally to have consisted of a circle of somewhat irregular form, measuring 1260 feet in diameter in one direction, and 1170 the other, surrounded by an agger and ditch; and the supposed avenues leading to it extending over a mile in length, and of an average breadth of forty feet. Within this general enclosure are two other circles, the one 325, and the other 270, feet in diameter. Near it is Silbury Hill, a mound of earth 500 feet in diameter at its base, and 170 feet in height; and numerous grave-mounds are spread over the surrounding country.

Stonehenge appears to have been a circle about 300 feet in diameter, surrounded by a fosse, and having, as supposed, an avenue leading to it. In this enclosure (of which here and there a stone still exists) was the famous circle whose remains are so well known. This is about 106 feet in diameter, and, besides the inner or horse-shoe arrangement of

stones, consists of a circle of small stones of a kind not found in the district, surrounded by a later circle of much larger stones, with transoms of the kind known as "Sarcens," which occur on Salisbury Plain. "It is evident," says Sir John Lubbock, "that Stonehenge was at one time a spot of great sanctity. A glance at the ordnance map will show that the tumuli cluster in great numbers round, and within sight of it; within a radius of three miles, there are about three hundred burial mounds, while the rest of the country is comparatively free from them. If, then, we could determine the date of these tumuli, we should be justified, I think, in referring the Great Temple itself to the same period. Now, of these barrows, Sir Richard Colt Hoare examined a great number, 151 of which had not been previously opened. Of these the great majority contained interments by cremation in the manner usual during the Bronze age. Only two contained any iron weapons, and these were both secondary interments; that is to say, the owners of the iron weapons were not the original occupiers of the tumuli. Of the other burial mounds, no less than thirty-nine contained objects of bronze; and one of them, in which were found a spear-head and pin of bronze, was still more connected with the temple by the presence of fragments, not only of Sarcen stones, but also of the blue stones which form the inner circle at Stonehenge, and which, according to Sir R. C. Hoare, do not naturally occur in Wiltshire.

Stonehenge then may, I think, be regarded as a monument of the Bronze age, though apparently it was not all erected at one time, the inner circle of small unwrought blue stones being probably older than the rest; as regards Abury, since the stones are all in their natural condition, while those of Stonehenge are roughly hewn, it seems reasonable to conclude that Abury is the older of the two, and belongs either to the close of the Stone age or to the commencement of that of Bronze. Both Abury and Stonehenge were, I believe, used as temples. Many of the stone circles have, however, been proved to be burial-places."

The large circle at Stanton Drew is about 360 feet in diameter, the average height of the stones being about twelve feet; while the average of those at Stonehenge is about twenty-one feet. "The stones are placed at equal distances, and the number of them had probably some significance. The two inner circles at Abury, the lesser circle at Stennis, and one at Stanton Drew, each consisted of twelve; the outer circles at Abury, the outer circles and transoms at Stonehenge, the large circle at Stanton Drew, and the circle at Arbor Low, each of thirty; those of Rollrich and Stennis, each of sixty; and the large enclosing circle of Abury of one hundred stones. Four circles at Boscowen-ûn and adjacent places in Cornwall, have each been formed of nineteen stones." A very frequent number of stones for the lesser circles was nine.

A fair idea of the relative sizes of some of the best known circles will be gathered from Fig. 13, where they are shown drawn to scale. They are as follows :—

A	Abury, outer circle, 1260 by 1170 ft.	I	Arbor Low, 150 feet.
B	lager inner circle, 325 feet.	J	Grey Wands, 150 feet.
C	lesser ditto, 270 feet.	K	Rollrich, 105 feet.
D	Stonehenge, outer circle, 300 feet.	L	Castle Rigg, 103 feet.
E	inner circle, 106 feet.	M	Eyam Moor, 100 feet.
F	Stanton Drew, 360 feet.	N	Boscawen-in, 80 feet.
G	Broggar, 342 feet.	O	Stanton Moor, 36 feet.
H	Long Meg and her Daughters, 330 feet.	P	Penmeanmawr, 81 feet.

A view of Arbor Low, in Derbyshire, is given in Fig. 10. No sepulchral remains have been discovered in the circle, but barrows of great extent, which have yielded important remains on being excavated, are closely connected with it. It is, however, possible that interments have existed, and been removed in past ages. In the centre of the circle, which is about fifty yards in diameter, are some large masses of stone, which it is possible may have formed portions of a "cromlech," or sepulchral structure. The circle is formed of a number of immense stones, all of which, now remaining, lie flat on the surface, not upright, as in most other instances. There is every probability that such was their original arrangement. The circle is surrounded by a rampart and fosse—the fosse being of considerable width, about eighteen feet, and the rampart about six or eight yards in height from its inner base. There are two entrances to this circle, north and south, each of which is some considerable width. Close to the

Fig. 18.

southern entrance is a large sepulchral mound, and about 300 yards away, and connected with the embankment around the circle by a continuous bank of earth, is another sepulchral mound, Gib Hill (Fig. 5), which on examination has yielded, like the one at the entrance, many highly interesting features.

Excavations into various grave-mounds have

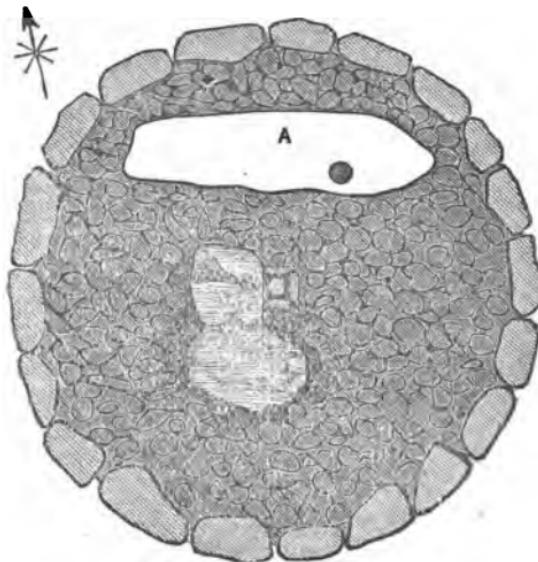


Fig. 14.

proved, beyond doubt, the fact that, in many instances, when an interment was made, the site of the proposed cairn to be raised over the remains was marked by a circle of stones laid on the surface of the ground, or inclining inwards, or set upright

in the earth. The loose stones, rubble, earth, etc., were then piled up within this enclosure, till the whole size and altitude of the mound was reached. This mode of construction is shown in the annexed plan (Fig. 14), where the circle comprises twenty upright stones, and marks the outer circumference of the cairn. Another, at Broad Down, has the circle composed of fifteen upright stones several

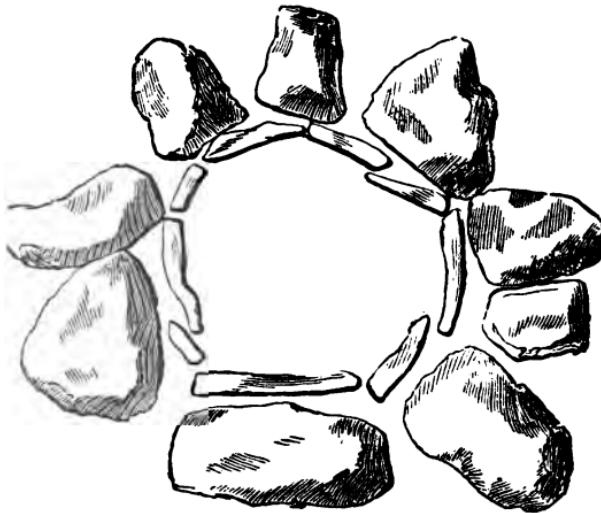


Fig. 15.

feet apart, to mark its outer circumference. Within this was a trench surrounding the barrow, in the centre of which, on the surface of the ground, was found a stone cist, composed of a number of stones inclining inwards, and forming a dome-shaped structure supported by a circle of larger stones, upon which it partially rested, and which appeared to be

intended to act as buttresses. Thus in this barrow there was an inner circle surrounding the cist, and an outer circle marking the entire boundary of the burial-place. The inner circle and the cist are shown in Fig. 15.

An example of the second mode of construction, that of encircling stones inclining inwards, is at Elk Low, shown in section in Fig. 1. The barrow had a depression running around its upper surface, something like an elevated fosse, as will be seen in the section. The interments were made on the natural surface of the ground, where, in the centre, lay a skeleton on its right side, in a contracted position, with its head resting on a piece of limestone, which was placed as a pillow. Other skeletons were also found, as was likewise an interment of burnt bones, and some flint and stone instruments. The outer circle was constructed of very large stones inclining inwards, and covered with small stones and earth, thus forming an extremely durable mound.

Either of these examples, if denuded of their superincumbent mounds, would form striking and very perfect examples of small so-called "Druidical circles."

When the circles have been formed of upright stones, they have not, certainly, always been covered with the mound, but have formed a kind of ring fence—a sort of sacred enclosure—around the barrow. A great number of examples of this kind

exist in different districts, and will easily be recognized by the zealous archaeologist. The circle shown in Fig. 11 is that of Stanton Moor, and is known by the name of the "Nine Ladies." This circle, of which a plan is given in Fig. 16, is formed of a circular mound of earth, on which the upright stones are placed. It is about thirty-six feet in diameter. It formerly consisted of a larger

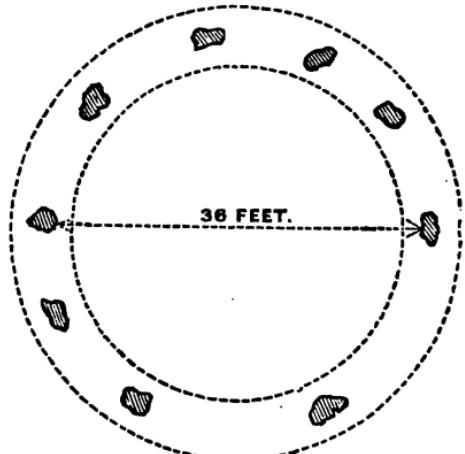


Fig. 16.

number of stones; those that are now remaining being at irregular distances, varying from eight to nineteen feet from each other. In the centre are the remains of a rifled sepulchral mound. Many other similar circles occur in Derbyshire. For instance, on Brassington Moor, near a fine chambered tumulus, now destroyed, existed two circles, the one thirty-nine, and the other twenty-two, feet in diameter.

On Leam Moor, too, circles surrounding interments are known to have existed. On Eyam Moor there are circles of this kind, surrounding sepulchral mounds. One of these is about a hundred feet in diameter, and is, like the "Nine Ladies" on Stanton Moor, formed of a circular mound of earth on which the stones are placed. Only ten of the stones remain *in situ*. In the centre a cist was discovered many years ago. Other circles occur in the same county on Abney Moor, on Froggat Edge, on the East Moor, on Hathersage Moor, and in many other localities.

On Dartmoor, in Devonshire, many circles yet remain, as they do also in Cornwall and in other counties. To the researches of Mr. Blight I am indebted for much of the following information regarding the Cornish circles. Upright stones



Fig. 17.

were, as in the case of the ring fences already named, placed at tolerably regular intervals around the barrow, either on the natural surface of the ground, or on a circular embankment thrown up for the purpose. The intervening spaces were then, in many instances, filled in with small stones so as to form a compact kind of wall, as shown in the above engraving. It will easily be seen that, in course

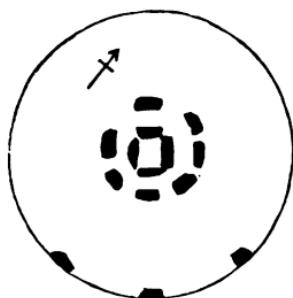


Fig. 18.

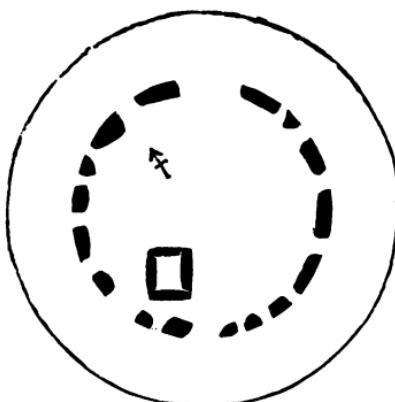


Fig. 19.



Fig. 20.



Fig. 22.

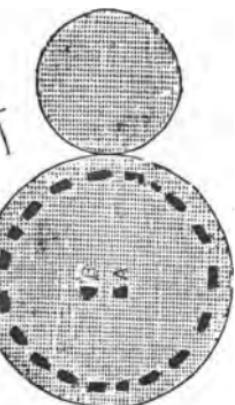


Fig. 23.

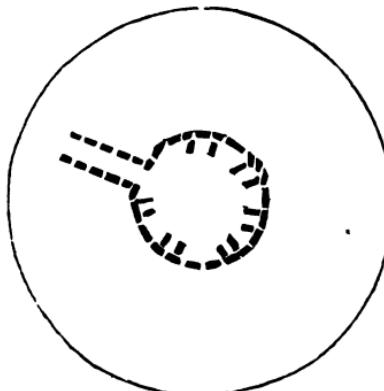


Fig. 24.

of time, the loose-walled parts would be thrown down and disappear, while the uprights, being firmly fixed in the ground, would remain. In some instances, as in the case of the circle enclosing a stone cist covered by a mound at Sancreed (Fig. 21), the upright stones touched each other, and thus formed a firm enclosure. This circle is about fifteen feet in diameter. Another variety is a double circle, or rather two circles, one within the other, and about two feet apart, surrounding the stone cist (Fig. 20). The stones in this example nearly touch each other. A somewhat similar one, but with the circles farther apart from each other, exists in the Isle of Man (Fig. 18). The mound, in this instance, probably rose from the inner circle only, and covered the central cist. In several instances the interment was not in the centre of the circle, but was made in different situations within its area. For instance, in the next example, from Trewavas Head (Fig. 19), the cist is near to the circle of stones, as it is also in the famous circle of Callernish. The next plan (Fig. 22) shows a totally different construction. In it the circle is composed of a number of stone cists, or sepulchral chambers, pretty close together, end to end. This example, of which a somewhat analogous one exists in the Channel Islands (Fig. 24), is on Mule Hill, in the Isle of Man. The next shows the plan (Fig. 23) of a pair of "twin barrows," so called, the circle in the largest being about thirty-five, and the smallest twenty-four feet in diameter.

In the centre are the remains of a stone cist, or chamber. Both mounds were cairns of loose stones.



Fig. 25.

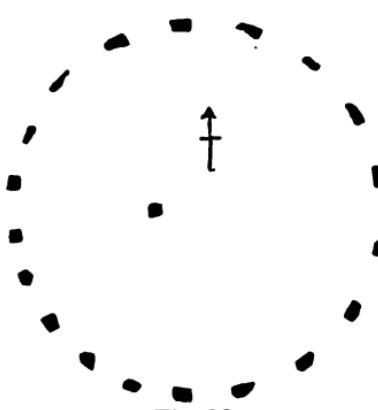


Fig. 26.

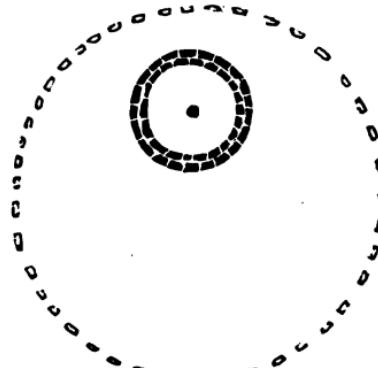


Fig. 27.

In others, first, there is an enclosing circle of stones, some placed upright, some longitudinally (Fig. 25), the intention being simply to make an encircling fence; within this the grave was constructed, then small stones heaped over the whole, the cairn extending, by about six feet, outside the built circle.

Some larger circles, such, for instance, as the Boscowen-ûn circle (Figs. 12 and 26), the Aber circle (Fig. 27), and others, may have been formed around a group, instead of single interments. In some instances a single stone was placed to mark the place of interment.

Three such exist in the barrow at Berriew. A large

circle (Fig. 28) on Penmeanmawr was composed of several uprights connected by smaller masonry.

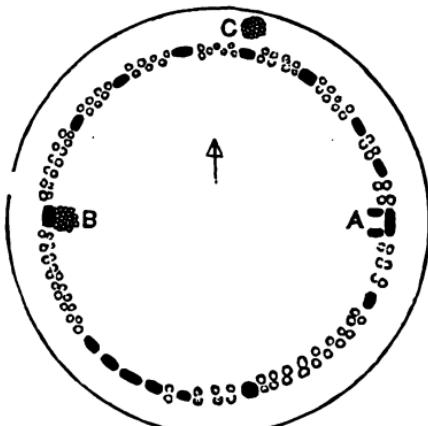


Fig. 28.

Here the interments were apparently made beside the pillars. Against the inner side of the tallest

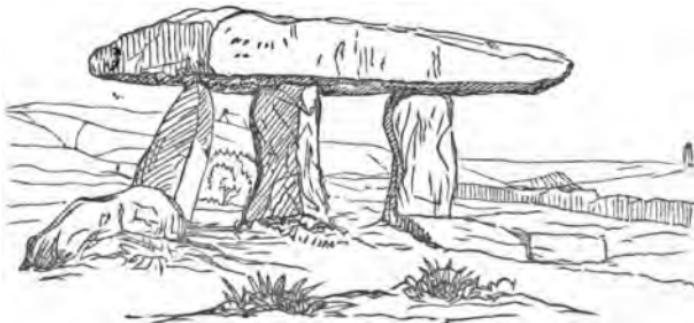


Fig. 29.

pillar A, on the eastern part, were the remains of a small kistvaen; while against the pillar B, facing

it on the opposite side, was heaped up a small cairn. The whole is surrounded by a ditch, within which, at C, is another small cairn.

The "cromlechs," so called, are, it seems tolerably certain, stone cists denuded of their outer covering. Many exist in different parts of the country. I engrave one well-known example (Fig. 29), the Lanyon cromlech, to show their usual form.

CHAPTER III.

AMONG IMPLEMENTS OF FLINT AND STONE.

IMPLEMENTs of stone may for the most part be arranged under the general heads of celts, hammers, and mauls, axes and picks, and grinding and whetstones ; and these may again be subdivided according to form and use. Those of flint consist of what may be called flakes, cores, scrapers, borers or drills, spear and arrow heads, sling-stones, etc. To an examination of these various forms half an hour may be very profitably and pleasantly devoted.

Celts are the most common of all the various implements of stone, and they vary considerably both in size, in form, and in material. They are found occasionally in the grave-mounds of the Britons, and are also turned up in the course of agricultural operations.

The name of "celt" has become so usual as the designation of these particular varieties of stone implements, and seems so appropriate, that, despite some attempts which have been of late made to

alter it, I unhesitatingly retain its use. With regard to the derivation of the word many opinions have been expressed. These have been so ably summed up by my friend Mr. John Evans, F.S.A., that I give his own words in preference to any of my own. "It has been fancied," he says, "by some that the name bore reference to the Celtic people, by whom the implements were supposed to have been made, and among those who have thought fit to adopt the modern fashion of calling the Celts 'Kelts,' there have been not a few who have given the instruments the novel name of 'kelts' also. In the same manner, many French antiquaries have given the plural, from the word *celtæ*. Notwithstanding this misapprehension, there can be no doubt as to the derivation of the word, it being no other than the form of the Latin *celtis* or *celtes*, a chisel. This word, however, is, curiously enough, an ἄπαξ λέγομενον—in this sense being only found in the Vulgate translation of Job, though it is repeated in a forged inscription recorded by Gruter and Aldus. The usual derivation given is à *cælando*, and it is regarded as the equivalent of *cælum*. The first use of the term that I have met with as applied to antiquities is in Beyer's 'Thesaurus Brandenburgicus,' 1696, where a bronze celt adapted for insertion in its haft is described under the name of *celtes*. It has been suggested that there may originally have been some connection between the Latin *celtis* and the British or Welsh *cellt*, a flint; but this

seems rather an instance of fortuitous resemblance than of affinity. A Welsh triad says there are three hard things in the world—*maen cellt* (a flint-stone), steel, and a miser's heart."

There are many curious beliefs connected with celts, one of the most usual being that they are thunderbolts, and another that, if placed in a well or cistern, they have the power of purifying the water and of acting as a preventive against disease in man and beast. Another belief is that if a "thunderbolt" be boiled in water, and the water used for bathing a rheumatic limb, it will effect a speedy cure. But this digression need not be further pursued.

The general form of celts is usually that of a more or less flat blade, approaching an oviform shape, and not unlike that of a mussel shell. The sides are more or less straight, and one end is, as will be understood from what I have written, broader than the other. The lower, or broad, or cutting end is slightly convex, and rubbed down to a sharp cutting edge. As this cutting edge has become dulled or chipped by use, it has been again rubbed down and sharpened. Thus it not unfrequently happens that a celt, when found, is not more than half or two-thirds of its original length, and has thus lost its proper proportion. In length celts vary from about two to sixteen or eighteen inches; a very usual size being from about four to six or seven inches.

Some of the more usual forms of these instruments will be found in Figs. 30 to 34, which may be considered to represent the most typical varieties. Some examples are simply rudely chipped into form, and left rough on the sides and edges, but others are beautifully and carefully rubbed down to a fine, smooth, and even polished surface.

The manner in which celts were used appears to have been by fixing into wooden or bone handles;

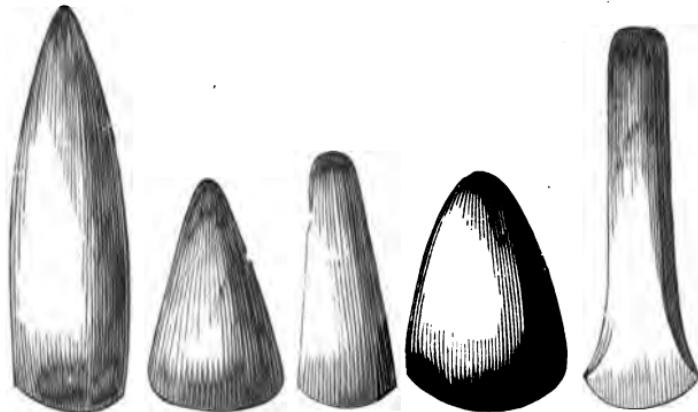


Fig. 30.

Fig. 31.

Fig. 32.

Fig. 33.

Fig. 34.

but some were undoubtedly used by holding in the hand only. A celt of the form of Fig. 30 was found, still attached to its handle of wood, in the Solway Moss, near Longtown, at a depth of about six feet below the surface. Another and better example (the celt being of the same general form) was found in a small lake in Cumberland, and has been engraved by Mr. Evans. The end of the handle, of wood, is

curved upwards. Another handled example, found at Tranmere, is preserved in the Liverpool museum.

The class of implements usually known by the name of "stone hammers" has been divided by Mr. Evans into the general classes of perforated axes (subdivided into double-edged axes, or those with a cutting or but slightly blunted edge at either end; adzes, or implements with the edge at right angles to the shaft-hole; axes with the edge at one end only, the shaft-hole being near the other end, which is rounded; and axe-hammers, sharp at one end and more or less hammer-like at the other, the shaft-hole being usually near the centre); perforated and grooved hammers; and hammer stones, or hammers not perforated for a shaft.

The first of these—the perforated axes—vary much in form and in size, as will be seen on reference to the engravings. Like as with the celts, popular belief has ascribed a supernatural origin to these larger and more ponderous instruments. In Scotland, according to Professor Wilson, the name by which they were popularly known till almost the close of last century, was that of "purgatory hammers." Found, as the stone hammer frequently was, "within the cist, and beside the mouldering bones of its old pagan possessor, the simple discoverer could devise no likelier use for it than that it was laid there for its owner to bear with him up the trinal steps, and with it to thunder at the gates

of purgatory till the heavenly janitor appeared, that he might—

‘Ask

With humble heart that he unbar the bolt.’”

The forms of the hammers in the first subdivision (that of examples with a cutting edge at each end)

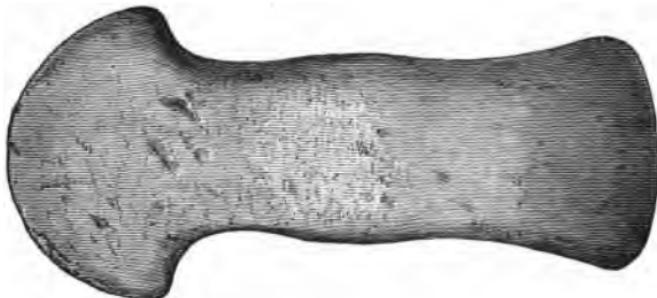


Fig. 35.

vary much, some being tolerably flat or level on their upper and under surfaces; others hollowed or

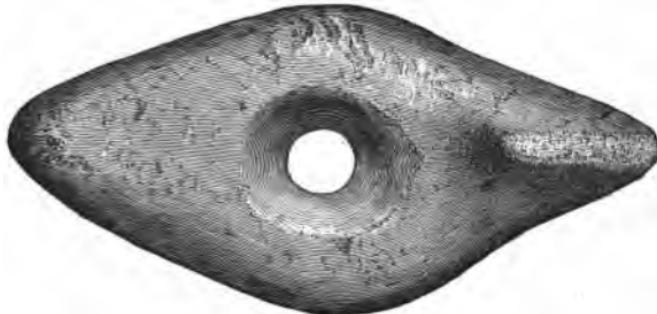


Fig. 36.

grooved; and others turned up in form of an adze. The engraving, Fig. 35, shows one of these latter as seen in side view, and Fig. 36 the same looking down

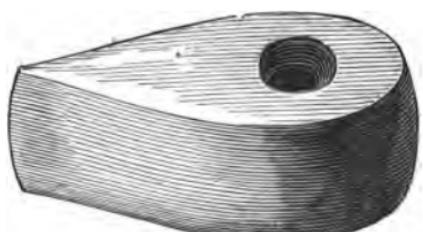


Fig. 37.

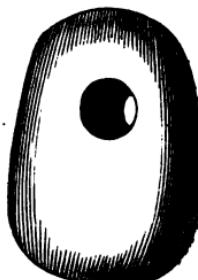


Fig. 41.

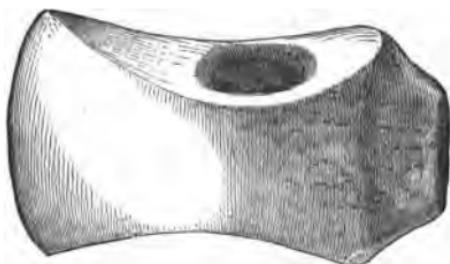


Fig. 38.



Fig. 42.

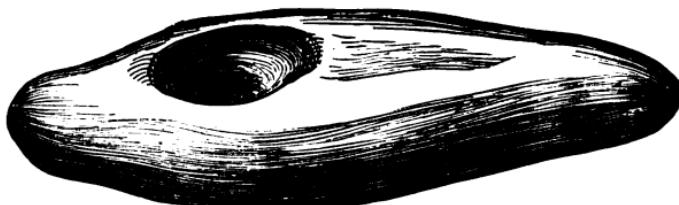


Fig. 39.



Fig. 40.

upon it so as to show the perforation for the shaft. The cutting edge, as usual in this class, is in a line with the shaft.

Implements of this kind, with the cutting edge at right angles with the shaft-hole, are of more rare occurrence in England, but they are nevertheless occasionally met with.

The typical form in the third subdivision (axe-heads, namely, a cutting-edge at one end only, the shaft-hole being near the other, or rounder, or butt-end) will be well understood by the engravings. Fig. 37, from Cambridgeshire, is of good shape, with the butt-end well rounded; the upper and under sides being flat, and the shaft-hole well defined. Fig. 40, instead of being grooved, as some examples are, has smooth sides, and a more hammer-like butt-end. The next engraving (Fig. 39) exhibits an example of much more slender and taper form; it does not partake so much of the battle-axe shape as many of the others do.

The fourth subdivision, that in which the butt-end is flat and hammer-like, embraces many good forms. These will be easily understood on reference to the wood-cuts. Some are flat at both ends, others rounded, and may therefore be not inappropriately called mauls. Of these, Figs. 41 to 43 will serve as examples.

Others are circular, triangular, and cruciform; but these latter are of very rare occurrence.



Fig. 43.

Another variety, rounded at both ends, with or without a cutting edge, and deeply grooved round the middle, is occasionally found. These are conjectured by Mr. Evans to have been "used as sinkers for nets or lines, for which purpose they are well adapted, the groove being deep enough to protect small cord around it from wear by



Fig. 44.

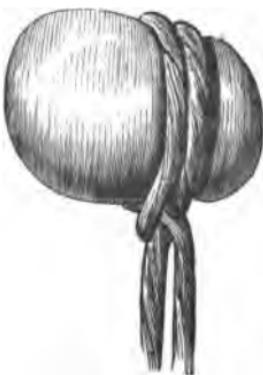


Fig. 45.

friction." Herein there can be little doubt Mr. Evans is in error. The form is much the same as that of "punches" or "cutters" used by blacksmiths even at the present day, and the groove is admirably adapted for the twisting round of a "withy," or hazel stick, in the same manner as is yet done. By this means an equally, or indeed more, useful weapon would be formed than if pierced with a shaft-hole. Stones of the general form of mauls, but not pierced, are sometimes met with, as are also others intended for use without shafts.

Some of these have indentations or hollows worked in their sides for firmer holding in the hand, and others have a shoulder on one, or on each, side, for the same purpose. Fig. 46 shows one of this latter variety, and it is surprising how firm a grip may be gained by, and how much force can be given to a blow from, such an instrument, which becomes an effectual and deadly weapon in the hand. Rough stones, which have probably been used for trituration purposes—the grinding of corn, etc.—are occasionally found. Querns or handmills of late Celtic date are sometimes met with both in Scotland and in Ireland, as are also whetstones or sharpening stones, and other objects.

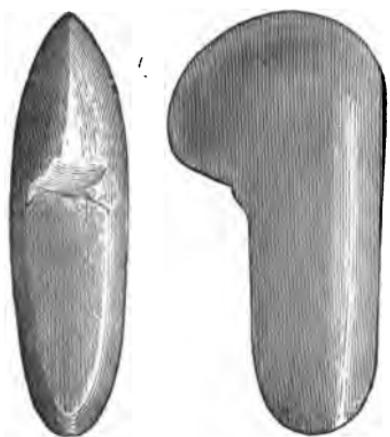


Fig. 46.

Flint implements are of extremely varied form, character, and use, and are of very general occurrence among Celtic remains. They may for general purposes be classed as flakes and chips;

scrapers, knives, etc.; spear and arrow heads, etc.; "thumb flints;" and other varieties. Of the modes of forming flint implements adopted by our primitive forefathers it is unnecessary here to speak; all that need be done is to give a few examples of the more



Fig. 47.



Fig. 48.



Fig. 49.



Fig. 51.



Fig. 50.



Fig. 52.



Fig. 53.

usual forms which researches have brought to light, and to refer the reader, for more detailed information, to Mr. Evans's "Ancient Stone Implements," where the whole subject is very ably treated.

Barbed arrow-heads are among the most beautiful and delicately shaped of flint instruments. The examples given in Figs. 47 to 51 show some of the most typical forms and sizes which are usually found. The two upper examples are from Yorkshire; and the next three (Figs. 49, 50, and 51), from Derbyshire, are examples in my own collection. These are engraved of their full size.

The whole of these, it will be seen, are stemmed as well as barbed—the stem being used for attachment to the shaft. Another variety has the two barbs, but no central stem. Two of these are engraved, in the next figures (Figs. 52 and 53), of their real size. Others with only a single barb are not of unfrequent occurrence in Derbyshire, and, with

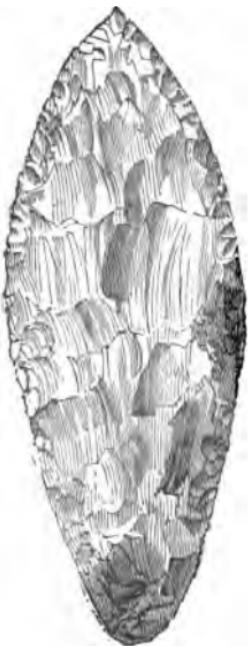


Fig. 54.



Fig. 55.



Fig. 56.



Fig. 57.



Fig. 58.



Fig. 59.



Fig. 60.



Fig. 61.

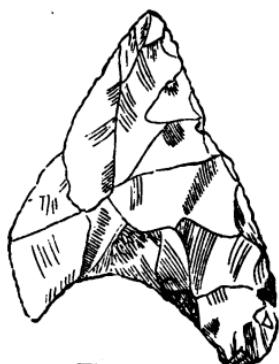


Fig. 62.



Fig. 63.

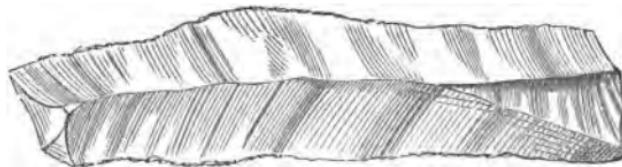


Fig. 64.



Fig. 66.



Fig. 65.



Fig. 67.

modifications, in Yorkshire and other districts. Two of these are shown in Figs. 62 and 63.

One distinct class of form is that usually known as "leaf-shaped," and this may be taken to be the prototype of the bronze dagger of a later period. Of this shape, arrow-heads, javelin-heads, daggers, or what not are formed. Some of these have, perhaps erroneously, been classed as "knives." The example Fig. 54 is from Green Low, and is of remarkably fine form. Fig. 55 is from Danby Moor; Figs. 56 and 57 from Calais Wold; and Fig. 58 from Gunthorpe. The two from the Calais Wold barrow, it will be seen, approach in form to the next or angular variety, of which examples are given in Figs. 60 and 61. These are from the same barrow, and are highly developed in their angles and in their attenuated points. Another form, of which Fig. 59 is a typical example, found in Derbyshire, is of rare occurrence in England. It is deeply serrated on its edges, and its base is formed for tying on the shaft with a thong.

Another variety, again, which at first sight appears more intended for throwing than for any other purpose, and which, with their sharp cutting edges, and the unerring aim of the Briton, must, if such was their use, have been indeed deadly weapons, is frequently found; one is shown in Fig. 65. These are simply lumps of flint, an inch and a half or a couple of inches or more in diameter; flat on one side and chipped into roundness on the other.

These are often called "thumb flints," and are, with good show of reason, called by Mr. Evans by the general name of "scrapers."

Flakes of various sizes and forms constantly occur, and various uses have been assigned to them with more or less show of reason. Celts are occasionally, but very rarely, found formed of flint.

I have alluded to the superstitions formerly prevalent concerning stone hammers, and it is necessary to add that flint arrow-heads come in for a fair share of a like superstitious feeling. They are, or rather were (for the belief is almost worn out), called "elf-shots," "elfin-darts," "fairy-darts," "fairy-bolts," and the like. They were supposed to have been used by the fairies in injuring men and cattle. Wherever found they were looked upon with reverence, and even awe; and were religiously preserved both as charms against sickness and death, preventives of the exercising of malignant

power by evil spirits, purifying of water, etc. They were occasionally set in silver, and in other ways worn as "charms." *

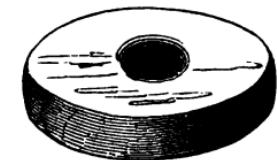


Fig. 68.

Spindle-whorls of various sizes, forms, and material, used, as their name implies, in the processes of spinning with the distaff and spindle (Fig. 68), are not unfrequently met with. They vary in size from one to about three inches

* "Reliquary," vol. vii. p. 207.

in diameter, and those of the Celtic period are usually flat circular pieces of stone pierced in the middle, and with flat or rounded edges. Spindle-whorls of wood and of bone, of ivory and of lead, etc., have been found with Roman and Anglo-Saxon remains. Sling-stones, carved balls with circles and channels evidently for tying with thongs or ropes, so as to form a formidable offensive weapon, and other stone articles, are of but rare occurrence. Small cups of stone or of Kimmeridge shale and many objects formed of jet, may occasionally be seen.

CHAPTER, IV.

AMONG CELTS AND OTHER EARLY INSTRUMENTS
OF BRONZE.

CELTs, daggers, awls, pins, and many other articles of bronze belonging to a very early period, are of frequent occurrence. Celts, palstaves, and socketed celts, however, are not often met with in barrows, but are more generally ploughed up in the course of agricultural operations. They vary much in form, in character, and in size, and are occasionally slightly ornamented.

The most simple, and therefore considered justly the earliest, form of these implements (shown in Figs. 69 to 71) is evidently a reproduction in metal of the common type of stone celts, as will be seen on reference to Figs. 30 and 34. This form, which the late Sir William Wilde judiciously denominated the "simple flat celt," is a plain hatchet-shaped flat piece of metal, the two ends rounding gradually off to a sharp edge. The size varies considerably from about three inches to upwards of twelve.



Fig. 69.



Fig. 70.



Fig. 71.

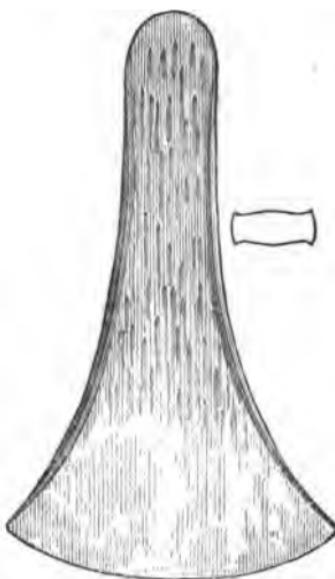


Fig. 72.

One of the largest is $12\frac{1}{4}$ inches in length and $8\frac{1}{4}$ inches broad, and weighs no less than four pounds fourteen ounces. It is perfectly plain, and is three-eighths of an inch thick, gradually attenuated to the ends, which are sharpened for cutting. Sometimes celts of this form, as of others, are ornamented with herring-bone or other lines, and exhibit in many other ways a higher degree of finish. The first advance on the plain flat form appears to have been the adoption of flanged edges. This will be seen in Fig. 72, where the edges are slightly rounded and flanged. The mode in which celts of this primitive form were hafted seems to have been simply the passing of the thin end transversely through a hole in a stick or piece of wood, and binding the wood with a thong, to prevent splitting. It would become the type of our modern axe—the axe edge in front and the tang behind. One of these celts, of precisely similar form to Fig. 71, found in a barrow at Shuttlestone, has been the means of throwing considerable light on the mode of interment adopted. The barrow contained “the skeleton of a man in the prime of life and of fine proportions, apparently the sole occupant of the mound, who had been interred whilst enveloped in a skin of dark red colour, the hairy surface of which had left many traces both upon the surrounding earth and upon the verdigris or patina coating of a bronze axe-shaped celt and dagger, deposited with the skeleton. On the former

weapon there are also beautifully distinct impressions of fern leaves, handfuls of which, in a compressed and half-decayed state, surrounded the bones from head to foot. From these leaves being discernible on one side of the celt only, whilst the other side presents traces of leather alone, it is certain that the leaves were placed first as a couch for the reception of the corpse, with its accompaniments, and after these had been deposited, were then further added in quantity sufficient to protect the body from the earth."* With the skeleton, besides the celt, was a fine bronze dagger, with two rivets for attachments to the handle, which had been of horn, the impression of the grain being distinctly perceptible; a small jet bead; and a circular flint. The celt had been, as was evident from the grain of wood still remaining, driven vertically, for about two inches of its length, into a wooden handle.

The next general class of celts consists of wedge-like implements more or less axe-shaped, in which the flange is sometimes made of considerable width, and in others the entire weapon is made thicker, with a groove (answering to flanged sides, so far as it goes) on either side, and a stop-ridge. These are generally denominated "palstaves," from the old Scandinavian term *paalstaf*, and it appears a convenient appellation. The form of the different varieties of palstaves will be best understood by the engravings, Fig. 75 being one of the slightly, and

* "Ten Years' Diggings."

Fig. 76 one of the deeply, flanged variety often termed "winged celts;" the latter having, like some of the other examples in this group, a central stopridge. Some of these deep flanges, or wings, are of

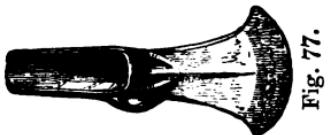


Fig. 77.



Fig. 76.

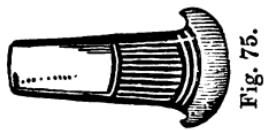


Fig. 75.

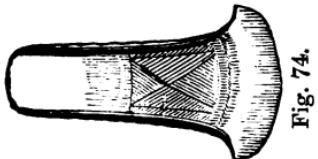


Fig. 74.

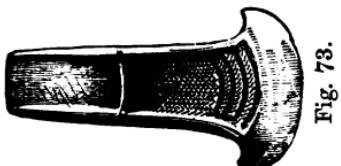


Fig. 73.

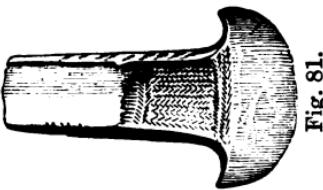


Fig. 81.

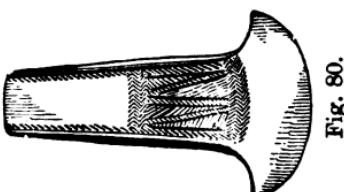


Fig. 80.

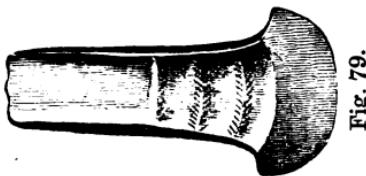


Fig. 79.

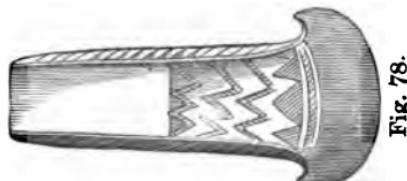
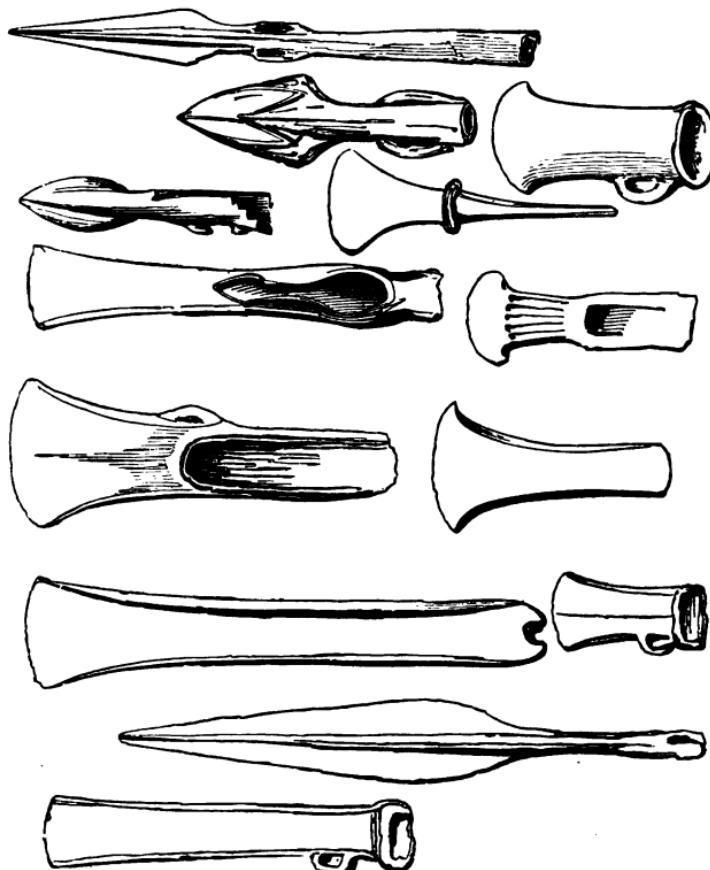


Fig. 78.

leaf-shape, while others, again, are of lozenge form. In some the edges of the flanges turn inwards, so as to grasp and hold the handle; in others a raised

ridge occurs, doubtless for the purpose of holding the binding. Sir William Wilde, who paid particular attention to the forms and peculiarities of these implements, describes the cutting edge as presenting "a great diversity; from a very slightly curved line to that of the segment of a circle, the centre of which would be about the junction of the lower and middle thirds of the length of the instrument"—*i.e.* a third of the length of the implement from its cutting edge—but I have examined several, and indeed possess some, where the centre of the segment of the circle would be only a fourth, and in some instances only a little more than a *fifth* of the length of the implement, measuring from the cutting edge. They have been cast with the cutting edge tolerably sharp, but it is not unusual to find specimens which have been rubbed down on stone to produce a finer edge. It is not uncommon to find them worn, broken, or notched and hacked on the edge, as if they had been used for chopping hard substances, or, in course of warfare or otherwise, been struck against the edge of others. The mode of attaching these palstaves to the handle appears to have been to have split the end of the stick or piece of wood, and then to have inserted the narrow end in the cleft, binding it tightly round with a thong. The central stop-ridge served for the ends of the split handle to rest or "stop" against. In some cases this stop-ridge is very slight—indeed, so slight as, apparently, to have been

of but little use—but in others it is developed into nearly half the thickness of the implement; while in



Figs. 82 to 94.

others, again, it is surface-raised, and forms a semi-socket on each side the celt. This raised stop, or semi-socket, was not unfrequently ornamented.

Many palstaves are characterized (as are also socketed celts) by a loop on the lower side, which was doubtless intended for securing it to its handle by a thong. This is well shown in Fig. 87, and was simply a loop, or eye, through which the fastening to the curved handle, whatever that fastening—whether of thong or of metal—may have been, was passed and repassed. It is placed immediately beneath the stop, and its orifice is chamfered or “countersunk” on either side, so as to prevent, as far as possible, chafing of the ligature. Now and then, but very rarely, examples with two loops, one on either side, have been found.

The next class, the *socketed celts*, are of very different form from either of the others, upon which they are evidently a later improvement, and the result of a gradual development. I have shown that the flanges or wings of the palstave became gradually enlarged, and, being occasionally curved inwards, formed a socket on either side for the reception of the cleft ends of the handle. From this the idea of the formation of a single socket would be easy and natural to the celt-maker; and accordingly we find the palstave, as it were, cut in two, the thin end thrown aside, and the cutting end increased somewhat in thickness at its upper end, and made hollow for the reception of the end of the handle or stick, which, instead of being this time split, was inserted whole. The variety of socketed celts is not so great as that of palstaves, but never-

theless many distinct forms occur. In all the loop, or eye, is close up, or near to the hollow end. The general form will be clearly understood from the engraving (Figs. 95 and 96). The socket, and frequently the outer rim, as well as occasionally the general exterior form of the upper part, is sometimes circular, and at others oval, square, or hexagonal, octagonal, etc. The socket generally runs nearly the length of the celt to the cutting edge, and usually the ridges, two, three, four, or more in number, where the core pieces have joined, are perceptible along its inside. Among the forms of socketed celts, one of very rare occurrence in England is the plain square and almost straight wedge engraved on Fig. 97, from an example in my own collection. It is hollow to nearly four-fifths of its length. It has had a loop on its under side at the head, but this, along with a piece of the rim, has been broken off, showing that considerable force must have been resorted to in using it. Other varieties are straight on their sides, circular in section in the shaft, and the cutting edge curved as in the other classes. Another kind is the gouge (Fig. 98), examples of which are found in both Ireland and England. In these the socket runs to more than three-fourths the length.

Of the uses of all these implements it is unnecessary to say much. On this point antiquaries have built up theories which, like houses erected on a quicksand, have all, one after another, sunk and

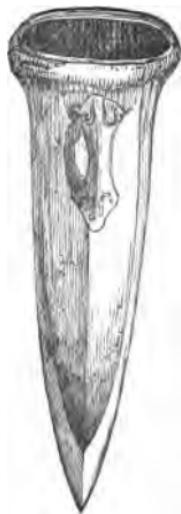


Fig. 95.

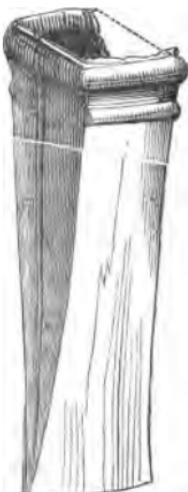


Fig. 97.



Fig. 98.



Fig. 96.



Fig. 99.

perished. We are told by one writer that they were used by besieging armies for displacing the stones in the walls of fortified cities so as to gain an entrance; and that, stuck on the ends of sticks—gathered fresh from the trees when required—they were used as wedges and levers, and as crowbars! But surely common sense ought to show the absurdity of the idea that a stick of the thickness of the thumb, cut fresh from a tree, could ever serve the purpose of a crowbar, or that a celt of a couple of inches or so in length could ever be of much service to a soldier in pulling down and making a breach in the walls of a fortified town. Wilson wisely says, speaking of the bronze axe, the palstave, and the socketed celt, "They all appear to be more or less applicable to a variety of uses, both as mechanical tools and warlike weapons, and any very nice attempts at discriminating between the various purposes for which they were designed are more likely to engraft on the devices of primitive art a subdivision peculiar to modern civilization, than to throw a light on the era of their production. The Indian's tomahawk and knife are equally employed in war or the chase, in the mechanical labours or culinary operations of the wigwam; and at a period greatly nearer to our own time than that of the bronze axe and celt, the same implements sufficed the Scottish moss-trooper or the Highland clansman for tableknife, *couteau de chasse*, and dagger."

Of the mode in which celts were manufactured

we are, happily, not left to conjecture, for many moulds, principally of stone, in which they were cast have from time to time been found.

Other implements of bronze consist of a socket, or rather ferrule, the upper part of which is armed with a number of deadly spikes (Fig. 99), usually in three rows, alternately. This, firmly fixed at the head of a wooden shaft, would, when wielded by a powerful arm, be one of the most terrible of weapons. An example in my own collection has been attached to the shaft by a rivet, and three of its spikes (of which there had originally been twelve) have, at the time when it was in use, been broken off on one side, with great force.

Bronze daggers vary in length from two and a half or three, to five and a half or six, inches on the average; the larger ones being an inch and a half to three inches in breadth at their broadest part,



Fig. 100.

where the handle has been attached, from whence they taper gradually down to the point. They are sometimes ribbed or fluted. In most instances the handle has been attached by three rivets; in some cases, however, as in Fig. 100, only two have been used, and occasionally there is evidence of the



attachment being effected by thong or other ligature. The handles were of horn or wood, and were usually semi-lunar where attached to the blade; in one instance, however, the blade has a "tang," or "shank," which has fitted into the square-ended handle, to which it has been fastened by a single peg. The blades occasionally present incontestable evidence of long use, having been worn down by repeated sharpenings. In the instance of the dagger found at Stanshope, which had been fastened to the handle by a couple of rivets as well as by ligatures, evidence existed of its having been enclosed in a sheath of leather; and this example also presented the somewhat curious feature of impressions of maggots, which had probably made their way from the decaying body into the inside of the sheath, between it and the blade, and had there remained, and thus gradually become marked upon the corrugated surface of the bronze.

Bronze swords, which have frequently been ascribed to the Ancient British period, are now generally admitted to belong to Roman times, as are also spear and lance heads, both socketed and otherwise.

Fig. 101.

Examples of bronze spear and arrow heads are shown in the group, Figs. 82 to 94, and on Figs. 102 and 103; a sword on Fig. 101: these will be sufficient to indicate their characteristics.

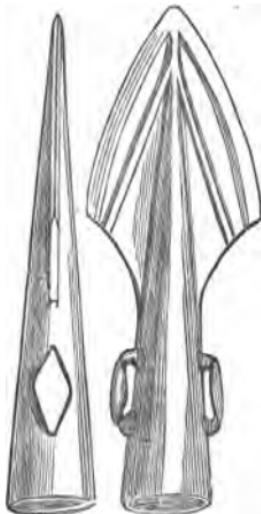


Fig. 102.



Fig. 103.

CHAPTER V.

AMONG ROMAN ROADS, TOWNS, AND VILLAS; TES-
SELLATED PAVEMENTS, TEMPLES, ALTARS,
SEPULCHRAL INSCRIPTIONS, MINING OPERA-
TIONS, ETC.

TRACES of Roman roads, and of British roads adopted by the Romans, remain to the present day in many parts of the kingdom, and are still in several instances used as the high-roads on which we yet travel. The roads were usually made in a straight line, seldom turning out of the way even for a high hill, and were sometimes raised considerably above the common level of the ground. They are classed as of five kinds:—*viæ militares*, or military roads; *viæ vicinales*, branch roads; *viæ privatae*, private roads; *via agrariae*, country roads; and *viæ deviæ*, by-roads. According to Vitruvius the forming of a road was conducted as follows:—First, two parallel furrows were cut so as to mark out the intended width; the surface-earth and loose stones between these were then removed until a solid foundation was reached, and this being levelled was

covered with earth and beaten down quite hard ; this was called the *pavimentum*. On this was laid a stratum of small stones, generally squared, over which was usually poured a quantity of mortar or concrete ; this was called the *statumen*. On this a layer of small broken stones, mixed with lime, in the proportion of one part of stones to two of lime, and forming a stony concrete, was laid ; this was called the *rudus*, or *ruderatio*. The next layer consisted of chalk, lime, and broken tiles, or earth, mixed together, or of gravel, or sand, and lime, mixed with clay ; this was called the *nucleus*. Upon this was laid the surface layer, the finishing stroke of the work, which consisted sometimes of a regular pavement of squared flagstones, and in others of a firm bed of gravel and lime ; this was termed the *summum dorsum*, or *summa crusta*—the whole structure, thus formed, being called *agger*. Of course it must not be understood that all Roman roads were formed in this manner, but still in most instances that have been examined there is an approximate adherence to these general rules. Such roads as those described were the grand military roads of the kingdom, along which the lines of the Itineraries were traced. At the end of each Roman mile (1000 paces, or 1611 yards, being 149 yards less than our English mile) of these main roads a milestone (*milliarium*) was placed. These were usually plain cylinders or short pillars of stone, bearing an inscription denoting the distance

from the next town, and the name of the emperor in whose reign it was erected. These have, unfortunately, in almost every instance perished, having been destroyed, doubtless, for the material. One remarkably good example found on the Foss Way, near Leicester, in 1771, and now preserved in the museum of that town, bears the inscription IMP CAESAR DIV TRAIAN PARTH F DIV TRAIAN HADRIAN AVG PONT IV COS III A RATIS II. Another example, also erected under Hadrian, is at Caton ; and a third was found a few years back at Buxton.

Remains of Roman bridges still exist, and others have of late years been removed in the course of improvements. Three notable examples were old London Bridge, and the old bridges over the Tyne and Teign, which had Roman foundations. Dr. Bruce has engraved an excellent example in his work on "The Roman Wall." This wall—Hadrian's Wall—extended from *Tunnocelum* (Bowness) on the Solway Firth to *Segedunum* (Wallsend) on the Tyne, a distance of nearly seventy miles. On it lay twenty-three towns (*Tunnocelum*, *Gabrosentum*, *Axelodunum*, *Congavata*, *Aballaba*, *Petriana*, *Ambo-glanna*, *Magna*, *Æsica*, *Vindolana*, *Borcovicus*, *Procolitia*, *Cilurnum*, *Hunnum*, *Vindobala*, *Condercum*, *Pons Ælii*, *Segedunum*, etc.), and between these were, at regular intervals of a Roman mile each, "mile-castles," or fortresses. Of the wall itself (which was a huge work of masonry varying from eighteen to twenty feet in height, and from six to

ten feet in thickness, with fosse and vallum on either side), and of these towers, etc., extensive and wonderful remains exist at the present day, and have, from the inscribed stones and other relics they have furnished, proved a rich storehouse of valuable knowledge. The reader cannot possibly do better than, for a brief account of the wall, read Dr. Bruce's "Wallet Book," and for a more detailed and profusely illustrated account refer to his noble volumes, "The Roman Wall" and "Lapidarium Septentriionale."

The wall of Antoninus, or Graham's or Grime's Dyke, crossed from the Forth to the Clyde on the line on which previously Agricola had erected a series of forts. It consisted of a new line of forts connected together by an immense continuous rampart of earth and turf, raised by the Proprætor Lollius Urbicus in the reign of Antoninus, and named after that emperor. Inscribed stones have been from time to time found along its course, expressive of the work done by different troops and cohorts of the Roman army. Thus:—IMP C T AE HADRIANO ANTONINO AVG PIO P P VEX LEG XX V V F P P III CDXI; which may be rendered—"To the Emperor Cæsar Titus Ælius Hadrianus Antoninus Augustus Pius, the father of his country. A vexillation of the Twentieth Legion, [surnamed] the Valiant and Victorious, executed four thousand four hundred, and eleven paces," or nearly four and a half miles.

Of the arrangement and economy of Roman towns and camps it is not necessary to speak. Among the principal were London, Wroxeter, Colchester, Richborough, Canterbury, Lincoln, Leicester, Kenchester, Cirencester, Silchester, etc.



Fig. 104. Roman Masonry, Colchester.

The town was usually in form a parallelogram, like the camp, and was surrounded by strong and massive walls. Striking remains of these walls exist at Lincoln (the Newport Gate), Leicester (the Jewry Wall), Wroxeter, Richborough, Lyme, and other places. The town consisted of public and private buildings of more or less extent and magnificence, and the general arrangements seem

to have been somewhat analogous to those of our own day.

Remains of Roman villas have been brought to light in most parts of the country. Some of these are of remarkable extent, and must, when inhabited, have been homes of taste and of luxurious elegance. The largest and finest yet uncovered in England is at Woodchester. It consists of two courts, one 150 and the other 90 feet square, surrounded by a gallery, or cryptoporticus. The principal apartment is fifty feet square, the floor being a splendid tessellated pavement, probably based on a hypocaust, with a fountain in the centre. Another of almost similar extent at Bignor has its courts, and cryptoporticus, and baths on a more magnificent scale still. I had, many years ago, the good fortune to discover a Roman villa in Oxfordshire (of which I gave an account in the "Journal of the British Archæological Association" for 1851); it presented many interesting features.

Tessellated pavements occur in most of the larger villas and houses, and are of more or less elaborate character in design and execution. Many of these have been found in London, Leicester, Cirencester, Caerleon, Caerwent, Lincoln, Canterbury, Gloucester, Wroxeter, Kenchester, York, Stonesfield, Winterton, Littlecote, Bignor, Frampton, Dorchester, Cotterstock, Aldborough, and many other places. They bear exquisite geometrical designs, guilloche and other borders, mythological groups and figures

fishes and sea monsters, the seasons, chariot races, hunting scenes, genii and cupids, gladiatorial combats, etc., etc., and occasionally inscriptions. Fig. 105 gives a careful representation of one of these



Fig. 105. Tesselated Pavement, Leicester.

pavements; it is from Leicester, and represents Diana and Actæon. It will be sufficient to show the style of workmanship. Hypocausts were formed of low, thick, hollow pillars composed of tiles or

stones, with openings at the sides to admit the passage of hot air, or of flues and funnels, formed of ridge tiles, for conveying the heated air. Baths were a very usual accompaniment of the Roman dwelling, and remains are of frequent occurrence.

The temple, basilica, or court-house, and public baths, appear in towns to have been usually placed close together. The temples were dedicated to various deities—Minerva, Neptune, Serapis, etc., etc. At Bath the remains of the temple dedicated to Minerva were sufficiently extensive to enable its *façade* to be restored ; and other somewhat extensive remains have been discovered at Ribchester, Keston, Caerleon, and other places. Usually, however, the only records of the existence of such temples are inscribed stones—as DEO SANCTO SERAPI TEMPLVM A SOLO FECIT, which occurs at York ; MATRIBVS OMNIVM GENTIVM TEMPLVM OLIM VETVS-TATE CONLABSVM, at Castlehead ; TEMPLVM VETVS-TATE CONLAPSVM RESTITVERVNT, at Chesters ; and so on. The same remark applies to the basilica and public baths, regarding which such inscriptions as BALNEVM CVM BASILICA A SOLO INSTRVXIT, at Lanchester ; BALINEVM VI IGNIS EXVSTVM RESTITVIT CVRANTE VAL. FRONTONE PREF. EQ. ALAE VETTO[NVM], at Bowes ; and so on, occur.

Roman altars are of very frequent occurrence. Their general form was an elongated square block of stone—like a portion of a square pillar—with an inscription on its front side. The front, as I have

said, contained the inscription, and the back was usually plain and rough, for attaching to, or placing against, a wall. On the other sides ornaments of various kinds were carved in relief. These usually consisted of the instruments of sacrifice—the *præfericulum*, or pitcher, which contained the wine for the offering; the *patera*, a dish with a handle, used for throwing a portion of the wine upon the altar; the *securis*, or axe, with which the animal was slain; and the *cultus*, or knife, used in cutting it up—with a figure of the whole or a part of the victim, usually the head of an ox. Sometimes other figures were introduced, emblematical of the deity to whom the altar was dedicated, or relating, perhaps, in some cases, to the dedicatory. The upper part was the most elaborately ornamented, and in the middle of the upper surface a basin-shaped cavity was sunk in the stone, called the *focus* (or hearth), which received the portion of the victim that was offered up in sacrifice and burnt in the fire kindled in the *focus*. The inscription set forth, first, the deity to whom the altar was dedicated; next, the name and condition of the dedicatory; and often concluded with stating the cause of dedication. This was usually a vow.

Fig. 107 represents an altar found at Bath. Fig. 106 is from Housesteads, on the Roman Wall, and bears an inscription which may be translated—“To Jupiter, the greatest and best, and the deities of Augustus, the First Cohort of Tungrians (a



Fig. 108.



Fig. 107.



Fig. 106.

military one), commanded by Quintus Verius Superstis, Prefect [erected this]." The next was found near Bakewell, and is preserved at Haddon Hall. It bears the inscription—

DEO
MARTI
BRACIACÆ
OS[IT]IVS
CAECILIANVS
PRAEF COH
I AQVITANO
VS

which may be translated—"To the God Mars, Braciaca, Osittius Cæcilianus, Prefect of the First Cohort of the Aquitani, in performance of a vow;" the term *Braciaca*, as applied to Mars, being singular.

One or two other inscriptions, for the purposes of comparison, may be profitably given. For instance, at York—I. O. M. DIS DEABVSQVE HOSPITALIBVS PENATIBVSQ OBCON SERVATAM SALVTEM SVAM SVORVMQ P AEL MARCIANVS PRAEF COH ARAM SAC F NC D. "To Jupiter, best and greatest, and to the gods and goddesses who preside over the household, and to the penates, for the preservation of the health of himself and his family, Publius *Aelius Marcianus*, prefect of a cohort, dedicated and consecrated this altar." From Ribchester—DEO SANCTO APOLLONI APONO OB SALVTEM DN AL EQ SARM BREMETNN SVB DIANIO ANTONINO ɔ LEG VI V IC DOMV ELIBER. "To the holy god Apollo Aponus, for the health of our

lord (the emperor), the wing of Sarmatian horse of Bremetenracum under Dianius Antoninus, centurion of the Sixth Legion, called the Conquering. His native town was Eliber." From Rochester—**DEAE MINERVE IVL CARANTVS S C.** "To the goddess Minerva, Julius Carantus dedicated this;" and so on. Fig. 109 represents one of those interesting groups, the *Deæ Matres*—or beneficent local pre-

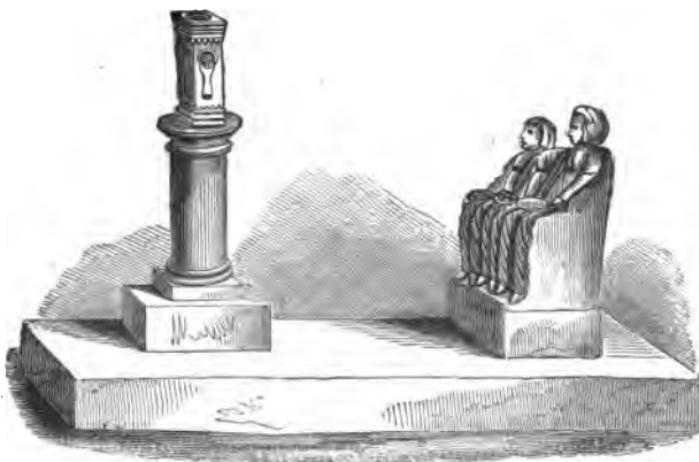


Fig. 109. From Ancaster.

siding deities, who were supposed to bring good fortune to those who invoked and honoured them. It was found in Ancaster churchyard, and was placed at one end of a slab of stone, while at the other end, and immediately facing the group, was a small altar supported on a pillar.

Another class of inscribed stones is that of

sepulchral slabs and sarcophagi. These inscriptions comprise the dedication D.M. (Diis Manibus); the name and office of the deceased; the age of deceased, and, if a soldier, the period and place of service; and the name of the person by whom it is erected. Sometimes they are accompanied by sculptured figures or ornaments. An example or two of inscriptions will suffice. Many of them are remarkable for their pure simplicity, and for the affectionate feeling touchingly expressed. One, at York, reads thus:—

D . M . SIMPLICIAE . FLORENTINE
 ANIME . INNOCENTISSIME
 QVE . VIXIT . MENSES . DECEM
 FELICIVS . SIMPLEX . PATER . FECIT
 LEG . VI . V.

“To the gods of the shades. To Simplicia Florentina, a most innocent thing, who lived ten months. Her father of the Sixth Legion, the victorious, made this.” Another, from Carvoran, in Northumberland, is thus affectionately worded:—

D . M
 AVRE . FAIAE
 D . SALONAS
 AVR . MARCVS
 D . OBESEQ . OON
 IVG . SANCTIS
 SIMAE . QVAE . VI
 XIT ANNIS XXXIII
 SINE VLLA MACVLA

“To the gods of the shades. To Aurelia Faia, a native of Salona, Aurelius Marcus, a centurion, out

of affection for his most holy wife, who lived thirty-three years without any stain." Another, from Caerleon, is thus:—

D . M . IVL . IVLIANVS
 MIL . LEG . II . AVG . STIP
 XVIII . ANNOR . XL
 HIC . SITVS . EST
 CVRA . AGENTE
 AMANDA
 CONIVGE

"To the gods of the shades. Julius Julianus, a soldier of the Second Legion, the Augustan, served eighteen years, aged forty, is laid here by the care of Amanda his wife." Another, from Chesters, in Northumberland, is as follows:—

D . M . S
 FABIE HONOR
 ATE . FABIVS . HON
 ORATIVS . TRIBVN
 COH . I . VANGION
 ET . AVRELIA . EGLIC
 IANE . FECER
 VNT . FILIE . D
 VLCISSIMME

"Sacred to the gods of the shades. To Fabia Honorata, Fabius Honoratius, Tribune, of the First Cohort of Vangiones, and Aurelia Egleciane, made this to their daughter most sweet." And one at Bath is thus:—

D . M
 AEL . MERCV
 RIALI . CORNICVL
 VACIA . SOROR
 FECIT

“To the gods of the shades. To *Æ*lius Mercurialis, a trumpeter, his sister Vacia made this.”

At York, among many others, is the following to a local magistrate, formerly a citizen of Bourges:—

M VEREC DIOGENES IIIIVIR COL
EBOR. IBIDEMQ MORT CIVES BITVRIX
CVBVS HAEC SIBI VIVVS FECIT

“Marcus Verecundus Diogenes, sevir, of the colony of Eburacum, who died there, a citizen of Biturix Cubus, made these for himself, when alive.”

At Housesteads, an inscription to a young physician is as follows:—D. M ANICIO INGENVO MEDICO ORDI COH PRIMAE TVNGR VIX AN XXV. “To the gods of the shades. To Anicius Ingenuus, physician in ordinary to the First Cohort of the Tungrians. He lived twenty-five years.”

At Bulmore, near Caerleon, are two remarkable inscriptions, the one recording the death of a centenarian, and the other that of his aged widow. They are as follows:—

IVL VALENS VET	D M ET
LEG II AVG VIXIT	MEMORIE
ANNIS C IVL	IVLLAE SECVNDI
SECVNDINA CONIVNX	NAE MATRI PI
ET IVL MARTINV8 FILIVS.	ISSIMAE VIXIT AN
F C	NIS LXXV C IVL
	MARTINV8 FIL
	F C

“Julius Valens, a veteran of the Second Legion,

the Augustan, lived a hundred years. Julia Secundina, his wife, and Julius Martinus, his son, caused this to be made."

"To the gods of the shades and to memory. To



Fig. 110.



Fig. 111.

Julia Secundina, a most affectionate mother, who lived seventy-five years. Caius Julius Martinus, her son, caused this to be made."

At Cirencester is the one here engraved (Fig. 110):—

BVFVS . SITA . EQVES . CHO VI
 TRACVM . ANN . XL STIP XXX
 HEREDES . EXS . TEST . F . OVRAVE
 H S E

“Rufus Sita, a horseman of the Sixth Cohort of Thracians, aged forty years. Served twenty-two years. His heirs, in accordance with his will, have caused this monument to be erected. He is laid here.”

At Hunnum is a stone, marking the burial-place of one killed by lightning. It simply bears the words —FVLGVR DIVOM.



Fig. 112.

Traces of Roman mining operations are met with in different districts; notably in Derbyshire, Shropshire,

Gloucestershire, Sussex, Warwickshire, Kent, etc. Inscribed pigs of lead have not unfrequently been brought to light.

A round pig of copper, bearing the inscription SOCIO ROMÆ, is preserved at Mostyn, and blocks of Roman tin have also occasionally been found.

Remains of workshops and traces of trades and occupations have been met with, but are not of common occurrence.

CHAPTER VI.

AMONG ANCIENT POTTERY.

THE pottery of the earliest period of English history—the Celtic—is of coarse material and rude character, but some of the forms, although simple, are elegant. The pottery of this period, for which we are entirely indebted to the burial mounds, may be divided into the following classes, viz.—
1. *Sepulchral* or *Cinerary Urns*, which have been made for and have contained, or been inverted over, calcined human bones; 2. *Drinking Cups*, which are supposed to have contained some liquid to be placed with the dead body; 3. *Food Vessels* (so called), which are supposed to have contained an offering of food, and are more usually found with unburnt bodies than along with interments by cremation; 4. *Immolation Urns* (erroneously, for want of more knowledge of their use, named *Incense Cups* by Sir R. Colt Hoare), which are very small vessels, found only with burnt bones (and usually also containing them), placed in the mouths of, or

close by, the large cinerary urns. These latter I believe to have been simply small urns intended to receive the ashes of the infant, perhaps sacrificed at the death of its mother, so as to admit of being placed within the larger urn containing the ashes of the parent: I have therefore ventured to name them "Immolation Urns."

The pottery exhibits considerable variety, both in clay, in size, and in ornamentation. Those vessels presumed to be the oldest are of coarse clay mixed with small pebbles and sand; the later ones of a somewhat less clumsy form, and perhaps a finer mixture of clays. They are entirely wrought by hand without the assistance of the wheel, and are mostly very thick and clumsy. They are very imperfectly fired, having probably been baked on the funeral pyre. From this imperfect firing, the vessels of this period are usually called "sun-baked" or "sun-dried;" but this is a grave error. If they were "sun-baked" only, their burial in the earth—in the tumuli wherein, some two thousand years ago, they were deposited, and where they have all that time remained—would soon soften them, and they would, ages ago, have returned to their old clayey consistency. As it is, the urns remain of their original form; and although, from imperfect baking, they are sometimes found partially softened, they soon regain their original hardness. They bear abundant evidence of the action of fire, and are, indeed, sometimes sufficiently burned for

the clay to have attained a red colour—a result which no “sun-baking” could produce. They are mostly of an earthy brown colour outside, and almost black in fracture, and many of the cinerary urns bear internal and unmistakable evidence of having been filled with the burnt bones and ashes of the deceased, while those ashes were of a glowing and



Fig. 118.

intense heat; they were, most probably, fashioned by the females of the tribe, on the death of their relative, from the clay to be found nearest to the spot, and baked on or by the funeral pyre, and then filled with the burning ashes of the dead.

The *Cinerary* or *Sepulchral Urns* vary very

considerably in size, in form, in ornamentation, and in material—the latter, naturally, depending on the locality where the urns were made; and, as a general rule, they differ also in the different tribes.



Fig. 114.

Fig. 115.

Those which are supposed to be the most ancient, from the fact of their frequently containing flint instruments along with the calcined bones, are of large size, ranging from nine or ten to sixteen or eighteen inches in height. Those which are considered to belong to a somewhat later period, when cremation had again become general, are of a smaller size, and of a somewhat finer texture. With them objects of flint are rarely found, but articles of bronze are occasionally discovered. Sometimes they are wide at the mouth, without any overlapping rim; at others they are characterized by a deeply overlapping lip or rim; others are more of "flower-pot" form, with encircling raised bands; while

others, again, are contracted inwardly at the mouth by curved rims. Some also have loops at the sides. The ornamentation is produced chiefly by incised lines, or punctures; or by lines, etc., produced by indenting a twisted thong into the soft clay. Encircling and zigzag lines of various forms, reticulated and lozenge-formed patterns, and rows of indentations, are the usual decorations; but occasionally clearly defined patterns are produced by the finger or thumb nail. Some examples are shown on Figs. 113 to 115.

The *Drinking Cups* are usually of tall form, globular in the lower half, contracted in the middle, and expanding at the mouth. In ornamentation they are more elaborate than the cinerary urns, many of them, in fact, being covered over their entire surface with impressed or incised patterns, frequently of considerable delicacy in manipulation, and always of a finer and higher quality than those of the other descriptions of pottery. In some instances a kind of incrustation is observable on the inner surface; this incrustation being, doubtless, produced by the gradual drying up of the liquid with which, when placed with the dead body, they had been filled. An example is given in Fig. 116.

The *Food Vessels*—small urns, so called because they were probably intended to contain an offering of food—are of various forms and sizes, and are, in point of decoration, more or less elaborate. They are usually small at the bottom, and gradually swell



Fig. 117.



Fig. 118.



Fig. 116.



Fig. 119.

Celtic Pottery.



Fig. 120.

out until they become, frequently, wider at the mouth than they are in height! They are formed of clay of much the same kind as the other vessels, and are fired to about the same degree of hardness. Their ornamentation, like the other vessels of the period, consists of diagonal or herring-bone patterns produced by twisted thongs or incisions; and other impressed ornaments. Their general form will be seen in Figs. 121 and 122.

The *Immolation Urns* (as I have ventured to call them, but which were formerly usually known as "incense cups") are diminutive vessels, varying very much in form from the plain "salt-cellar" shape to the more elaborately rimmed vase, and are from an inch and a half to three inches in height. They are usually found in the mouths of the larger cinerary urns, or close by them, and contain in most instances the calcined bones of children. Their ornamentation is of the same general character as the other vessels. Small vessels with handles, which belong to this general class, are also occasionally found. Examples are given on Figs. 117 to 120.

Roman pottery, as found in this country, may be said to consist principally of Samian or red lustrous ware; Durobrivian or Castor ware; the pottery of the Upchurch Marshes; and Shropshire, Yorkshire, and Hampshire wares; but as potworks existed in various localities all over the country, many other kinds and varieties are known.

The Samian or red lustrous ware does not appear



Figs. 121 and 122. Celtic Pottery.



Fig. 123 to 125. Samian Ware.

to have been made in this country, but imitations of a very inferior character were produced. The body of the Samian ware is of a fine red colour, but its surface is of a deeper and richer tone ; much like the best red sealing-wax. It is extremely hard and brittle, and is sonorous in sound when struck. The vessels of this ware consist for the most part of bowls, cups, and pateræ, or dishes, in each of which divisions are found an almost endless variety of form, and while some are perfectly plain, others are more or less covered with ornaments — figures of men, animals, foliage, borders, etc.—in relief. These relief ornaments were produced from moulds, and the names of the makers of the vessels was also frequently stamped upon them. The most usual ornamental borders are the egg-and-tongue ornament, the tassel-and-festoon border, small patterns formed of foliage and flowers, and others. Human figures and animals are of frequent occurrence, and are often very powerfully moulded. Subjects from classical mythology are common, and among the figures of the deities many were copied from well-known models of art. Combats of pygmies and cranes are favourite subjects, as in the paintings, etc., in Pompeii. Sacrifices and religious ceremonies, and especially bacchanalian processions, and dances of bacchantes and satyrs, are not uncommon. Among other very favourite subjects are hunting scenes, gladiatorial combats, and the sports of the amphitheatre. Others represent sacrifices and re-



Figs. 126 to 132. Roman Pottery.

ligious offerings. Musicians performing on various instruments are also common; and domestic scenes are depicted in great variety. Many of these are of a character not to be described, but sufficiently characteristic of the degraded state of morality under the Roman Empire. Of the plainer and commoner kinds of Samian ware vessels, the cups and bowls, etc., here engraved will give a tolerably correct idea.

The potter's name was usually placed in a small rectangular label. The name is most commonly put in the genitive case, combined with O or



Fig. 133.



Fig. 134.



Fig. 135.

OF (abbreviations of the word *officina*), as, for instance, OF MODESTI, which simply stands for *officina Modesti*, i.e. "from the workshop of Modestus;" or with M for *manu*, as COBNERTI M, for *Cobnerti manu*, "by" or "from the hand of Cobnertus." Sometimes the name is given in the nominative case, followed by F or FE, for *fecit*,

as COCVRO F, for *Cocuro fecit*, "Cocuro made it." Doubled or ligulated letters are frequently introduced into these inscriptions. Sometimes we meet with an error in the spelling of the word; and in one or two instances the person who made the stamp inscribed the name carelessly, so that it read direct on the stamp, and consequently it is reversed in the impression on the pottery. The name is not always placed in a square label, but in a few instances has been found inscribed round a small circle.

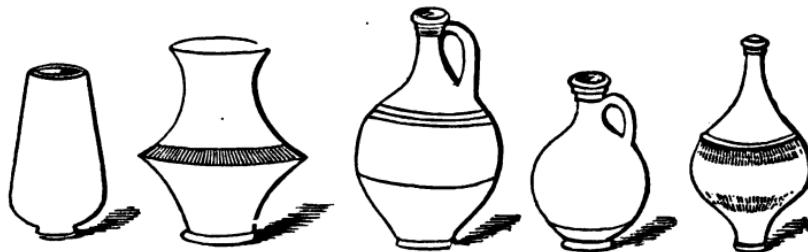
The pottery of the Upchurch Marshes, on the Medway, in Kent, and commonly known as "Upchurch ware," is found among Roman remains in



Figs. 136 to 145.

most parts of the kingdom; and a similar ware is found on Roman sites in France, Germany, and Flanders. The prevailing colour is a bluish or

greyish black, with a smooth and rather shining surface, produced by the process of firing in "smother kilns;" but a good deal of the ware is of a dark drab colour. The forms and sizes of the vessels vary to a surprising extent, but they are all characterized by a simple gracefulness and elegance of outline, and in many instances the patterns with which they are decorated are of peculiar and effective design. These decorations consist in the main of circles and semicircles; lines vertical or



Figs. 146 to 150.

otherwise; bands; and an infinity of raised dots arranged in a variety of ways. The clay used is fine, and the vessels are light and thin and well formed.

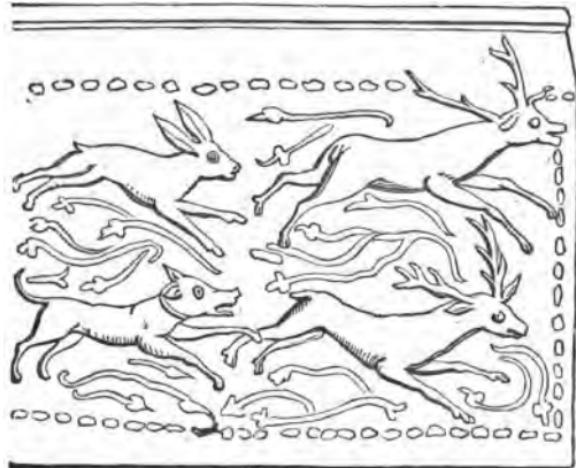
The Castor or Durobrivian ware of the potteries on the Nen, in Northamptonshire and Huntingdonshire, is of marked character, and has been extensively used. In this locality—at Castor and its neighbourhood—remains of very extensive pot-works, covering many acres in extent, have been found; and several kilns in a more or less perfect state, and containing ware *in situ*, have been uncovered. One of the kilns is shown in Fig. 151.

The ware of the Durobrivian potteries is superior both in style of art and in form and material to that of Upchurch, and has an especial interest over it in the fact that it bears figures and various ornaments in relief, in the same manner as on the Samian ware. The ornament, especially the scrolls, etc., is laid on "in slip." The vessel, after having been



Fig. 151.

thrown on the wheel, was allowed to become somewhat firm, but only sufficiently so for the purpose of the lathe. In the indented ware, the indenting was performed with the vessel in as pliable a state as it could be taken from the lathe. A thick slip of the same body was then procured, and the ornamentation proceeded. "The vessels—on which are displayed a variety of hunting subjects, representations



Figs. 152 to 158. Castor Ware.

of fishes, scrolls, and human figures—were all glazed after the figures were laid on ; where, however, the decorations are white, the vessels were glazed before



Figs. 159 to 163.

the ornaments were added. Ornamenting with figures of animals was effected by means of sharp and blunt skewer instruments and a slip of suitable

consistency. These instruments seem to have been of two kinds—one thick enough to carry sufficient slip for the nose, neck, body, and front thigh ; the other of a more delicate kind, for a thinner slip, for the tongue, lower jaws, eye, fore and hind legs, and tail. There seems to have been no retouching, after the slip trailed from the instrument. Field sports seem to have been favourite subjects with our Romano-British artists. The representations of deer and hare hunts are good and spirited ; the courage and energy of the hounds, and the distress of the hunted animals, are given with great skill and fidelity, especially when the simple and off-handed process by which they must have been executed is taken into consideration."

Gladiatorial combats and mythological figures and groups are also frequent subjects for representation on the Castor vases. Another pleasing variety, peculiar to Castor ware, has the pattern of scrolls and flowers in white slip upon a dark bluish-black ground (Figs. 155 to 157, and 163).

Of Salopian ware two kinds especially are found in great abundance ; the one white, the other of a rather light red colour. The white, which is made of what is commonly called Broseley clay, and is rather coarse in texture, consists chiefly of somewhat handsomely formed jugs or bellarmine-shaped vessels, of different sizes ; of Mortaria ; and of bowls of different shapes and sizes, which are often *painted* with stripes of red and yellow. The other variety.



Figs. 164 to 174. New Forest Pottery.

the red Romano-Salopian ware, is also made from one of the clays of the Severn Valley, but is of finer texture, and consists principally of jugs not dissimilar to those in the white ware, except in a very different form of mouth; and of bowl-shaped colanders.

The pottery of the New Forest, in Hampshire, is of great variety of form and material. Some of the vessels are shown in Figs. 164 to 174, and these will be sufficient to give an idea of some of the most prevalent varieties of Romano-British pottery. Other potworks have been found at Colchester, Headington (near Oxford), Winterton, Wilderspool, London, Ashdon, York, Worcester, Marlborough, and many other places; but their peculiarities need not be entered upon here.

Anglo-Saxon pottery, so far as examples have come down to us, is almost, if not entirely, confined to sepulchral urns. We know, from the illuminated MSS. of the period, to which we are accustomed to turn for information upon almost any point, that other vessels (pitchers, dishes, etc.) were made and used, but those which have come down to us are almost exclusively sepulchral vessels. Cinerary urns are, therefore, almost the only known productions of the Saxon potteries, and these, like those of the Celtic period, were doubtless, in almost all cases, made near the spot where the burial took place, and were formed of the clays of the neighbourhood. The shapes of the cinerary urns are somewhat

peculiar, and partake largely of the Frankish form. Unlike the Celtic urns, they are contracted at the mouth, and have a kind of neck instead of the overhanging lip or rim which characterizes so much of the sepulchral pottery of that period. They are formed by hand, not on the wheel, like so many of the Romano-British period, and are usually of a dark-coloured clay, sometimes nearly black, at other times a dark brown, and occasionally of a slate



Figs. 175 to 183.

or greenish tint, produced by surface colouring. The general form of these vessels will be understood by reference to the engravings. Most of them are of plain form, but others have projecting knobs, or bosses, formed by pressing out the pliant clay from the inside with the hand. In others these raised bosses take the form of ribs gradually swell-

ing out from the bottom, till at the top they expand into semi-egg-shaped protuberances. The ornamentation on the urns usually consists of encircling incised lines in bands or otherwise, and vertical or zigzag lines arranged in a variety of ways; and, not unfrequently, the knobs or protuberances of which I have just spoken. Sometimes, also, they present evident attempts at imitation of the Roman egg-and-tongue ornament. The marked feature of the pottery of this period is the frequency of small punctured or impressed ornaments, which are introduced along with the lines or bands with very good effect. These ornaments were evidently produced by the end of a stick cut and notched across in different directions so as to form crosses and other patterns. In some districts—especially in the East Angles—they are ornamented with simple patterns painted upon their surface in white; but so far as my knowledge goes, no example of this kind of decoration has been found in the Mercian cemeteries.

The pottery of the Norman period consists principally of pitchers, dishes, bowls, or basins, and porringers or pipkins—the bowls or basins and dishes being used for drinking purposes as well as for placing cooked meats in; the pitchers for holding and carrying ale, mead, water, and other liquors to the table; and the porringers both for cooking and eating purposes. The engraving (Fig. 184), from an illuminated MS. of the 12th century,

shows both the pitchers and the wine or water vessels.

I purposely abstain from even alluding to the pottery of a later date than Norman in this chapter,

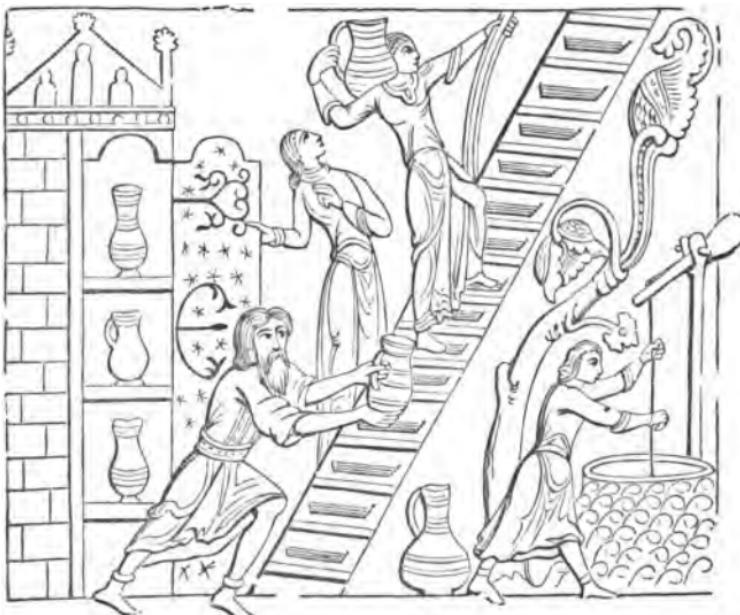


Fig. 184.

because the subject of English earthenware and china is of such extent as to demand a separate series of "Half-Hours" for its consideration.

CHAPTER VII.

AMONG ARMS AND ARMOUR.

THE arms of our prehistoric forefathers—the implements of stone and of bronze—have been spoken of in their respective chapters, and therefore it would simply be useless repetition to again name them. The Roman invasion and occupation of our island, and the long and close connection which existed between our countrymen and the Romans consequent upon that occupation, led, naturally, to the adoption of the armour and warlike appliances of the Imperial city. Tacitus tells us that after the administration of Julius Agricola, who was appointed to the command of Britain, A.D. 78, “the sons of the British chieftains began to affect our dress,” and therefore we may easily and reasonably surmise that they also—as, indeed, there is abundant reason for supposing to be the case—copied and wore the same kinds of defensive covering, and used the same kinds of weapons. Remains of armour of the Romano-British period are occasionally met

with in England. The sword and the dagger, etc., have already been spoken of; in addition to these was the shield with, sometimes, its elegant boss; and the spear or lance head.

The armour of the Anglo-Saxons, like their arms, partook of the Frankish character. Remains of this period are few and far between. Helmets, or head



Fig. 185.

coverings, in a fragmentary state, have on some few occasions been found. The most remarkable was found at Benty Grange, in Derbyshire, in 1848, along with many personal ornaments and other objects. The frame of this helmet "consists of a series of iron bands, radiating from the crown of

the head, and riveted to a circle of the same metal which encompassed the brow. From the impression on the metal it is evident that the outside was covered with plates of horn disposed diagonally so as to produce a herring-bone pattern; the ends of the plates were secured beneath with strips of horn corresponding with the iron framework, and attached to it by ornamental rivets of silver at intervals of about an inch and a half; on the bottom



Fig. 186.

of the front rib, which projects so as to form a nasal, is a small silver cross, slightly ornamented round the edges by a beaded moulding; and on the crown of the helmet is an elliptical bronze plate supporting the figure of an animal carved in iron, with bronze eyes, now much corroded, but perfectly distinct as the representation of a hog." Many fragments, more or less ornamented with silver, which have been riveted to some part of the helmet, and some iron buckles were also found, as well as other objects, including a mass of iron chainwork, consisting of "a large number of links of two kinds, attached to each other by small rings, half an inch in diameter; one kind is flat and lozenge-shaped, about an inch and a half long; the others are all of one kind, but of different lengths, varying from four to ten inches. They are simply lengths of square rod iron with perforated ends, through which pass the rings con-

necting them with the diamond-shaped links ; they all show the impression of cloth over a considerable part of the surface, and it is, therefore, no improbable conjecture that they would originally constitute a kind of quilted cuirass, by being sewn up within, or upon, a doublet of strong cloth." Worsaae, in his "Antiquities of Denmark," says, "The helmets of the ancient Scandinavians, which were furnished with crests, usually in the form of animals, were probably in most cases only the skins of the heads of animals, drawn over a framework of wood or leather, as the coat of mail was usually of strong quilted linen, or thick woven cloth." To this the translator adds : "The animal generally represented was the boar ; and it is to this custom that reference is made in Beowulf, where the poet speaks of the boar of gold, the boar hard as iron."

Allusions to the custom of wearing the figure of a boar—not in honour of the animal, but of Freya, to whom it was sacred—are also to be found in the Edda and in the Sagas ; while Tacitus distinctly refers to the same usage and its religious intention, as propitiating the protection of their goddess in battle. The following extracts from Beowulf will serve as an illustration, not only of the helmet, but of the chainwork :

"eofer-líc scíónon
ofer-hleor beran ;
ge-hroden golde
fah and fyr-heard,
ferh-wearde heóld.

They seemed a boar's form
to bear over their cheeks ;
twisted with gold,
variegated and hardened in the fire,
this kept the guard of life :

Be-fongen freá-wrásnum,
 swa híne fyrn-dagum
 worhte wæpna smith,
 wundrum teóde,
 be sette swin lícum,
 that híne sythan nō
 brond nē beado-mecas
 bitan ne meahton:

Surrounded with lordly chains,
 even as in days of yore
 the weapon smith had wrought it,
 had wondrously furnished it,
 had set it round with shapes of swine,
 that never afterwards
 brand or war-knife
 might have power to bite it:

I. 2901.

Æt thæm áde wæs
 eth-ge-syne
 swát-fah-syrce
 swyn eal-gylden,
 eofer íren heard:

At the pile was
 easy to be seen
 the mail shirt covered with gore,
 the hog of gold,
 the boar hard as iron:

I. 2213.

Hét thá in-beran
 eafor heáfod-segn,
 heago-stepáne helm,
 [se] are-byrnán,
 guth-sweord geáto-líc : "

Then commanded he to bring in
 the boar, an ornament to the head,
 the helmet lofty in war,
 the grey mail coat,
 the ready battle sword. I. 4298.

It will be noticed in these extracts that "mail coat," or "mail shirt," is twice mentioned, as well as the "helmet lofty in war." Thus the passages in a remarkable degree illustrate the Benty Grange discovery, which embraced a coat of mail along with the helmet and other objects.

Remains of other helmets, one, for instance, at Barlaston, and others at Newhaven and Leckhampton, have also been discovered. Buckles, such as probably fastened the belt or girdle to which the knife or sword was suspended, and others which have doubtless belonged to some portions of the

dress, are not uncommon. They are of varied form, some partaking of the character of the fibulæ of the period. The two engravings are from Kentish graves.

The arms of the Anglo-Saxons appear to have consisted of swords, spears, knives, daggers, shields, etc., etc. The swords are straight-bladed, usually double-edged, with hilts

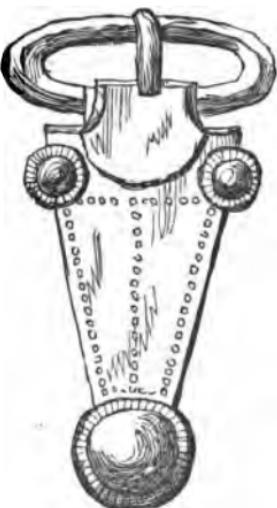


Fig. 187.

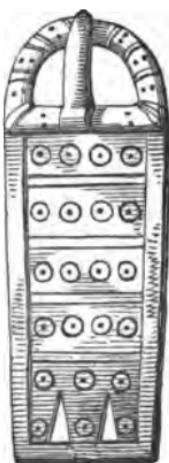


Fig. 188.

of metal or wood; the scabbards, of wood, or leather, or bronze, are often elaborately ornamented at the chape. They are not unfrequently found in Anglo-Saxon interments, where they usually lie by the side of the skeleton, as shown in Fig. 189, which illustration will serve to show the usual position in which arms are found—the sword, the knife or dagger, the spears, and the shield.

The knife or dagger (*the seax*), which like the sword is of iron, is of varied forms. These, as well as the most usual shapes of the sword, spear, and javelin heads, will be best understood on reference to Figs. 192 to 204.

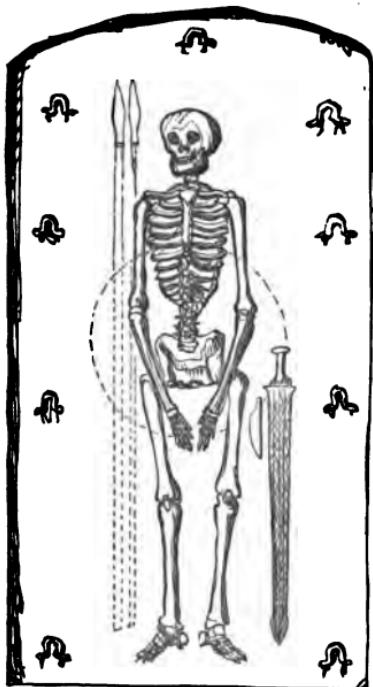
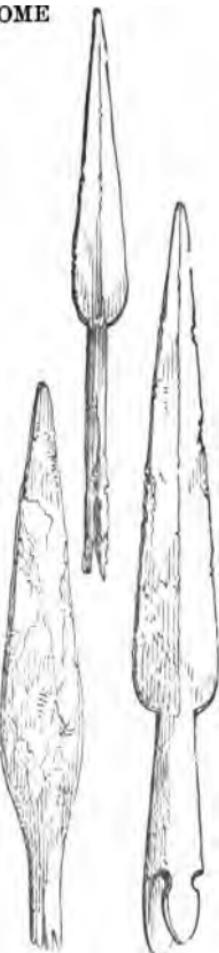


Fig. 189.



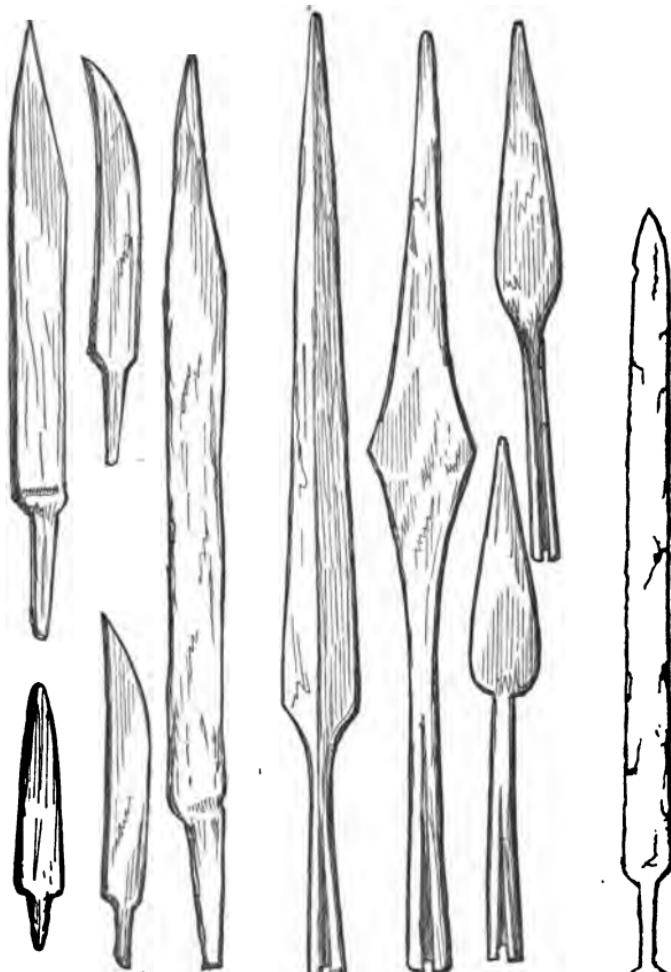
Figs. 192 to 194.



Fig. 190.



Fig. 191.



Figs. 195 to 203.

Fig. 204.

The shield (*the war board*) appears to have been of wood, and of circular form, and to have been sometimes covered with leather or thin sheets of bronze; occasionally, however, as appears from *Beowulf*, they were made of iron, but no such example has been found. Three forms of umbones, or bosses, are given in Figs. 190, 191, and 205; the latter of these, from Tissington, measuring no less than nine inches in height.

It will only be necessary briefly to allude to the enamelled discs, or pendants of bronze, which are from time to time found with other remains; these probably were attached to the helmet. Nothing, however, is known with certainty as to their use.

Of Norman armour and arms in England, the Bayeux tapestry affords every detail, and may be looked upon as a valuable storehouse of information. The armour worn in England from the Conquest may, as Boutell well summarizes it, "be divided into four great groups, each of them associated with its own historical period: 1. Mail



Fig. 205.

armour, the period of its use ending about A.D. 1300 ; 2. Mixed mail, or plate armour, from about 1300 to about 1410 ; 3. Plate armour, from about 1410 to about 1600 ; 4. Half armour, the period of the partial use of armour extending to the commencement of the eighteenth century." The arms and armour, in different centuries, may be thus summarized from Mr. Godwin's useful tables :—

11th Century. Armour : The hauberk, or lorica (probably the *war byrnies*, *battle-shirt*, or *battle-net* of the Anglo-Saxons), of chain mail, formed of flat rings and mascles, which clothed both body and limbs, like trowsers and jacket combined ; the haubergeon, or smaller hauberk ; the jacque, a leather tunic with overlapping flaps and close sleeves ; the helmet, sometimes simply conical, with a knob at the top and a rim below, and at others with a nasal guard ; short spurs ; and shoes and hose. Arms : The sword ; the lance, with gonfanon or pennon attached ; the pile ; the club or mace ; the bow ; the morning star, a staff or club to which was attached, by hanging or otherwise, a spiked ball of iron ; the oncin, or staff with iron hook and spike ; and the shield, which was of a long, flat, kite-shaped form, and frequently bore the figure of a cross or other ornament.

12th Century. Armour : The hauberk was composed sometimes of rustred armour, in which the rows of rings or mascles overlapped each other ; or scale armour, so called from its resemblance to

fish scales ; or trellised armour, formed of interlaced straps of leather, having diamond-shaped interstices, in each of which was a steel stud or boss ; or tegulated armour, in which the plates were tile-shaped. The tunic, or haqueton, worn under the hauberk ; the chausses, fitting close to the limbs, and worn over both legs and feet, and sometimes composed of rings set edgeway ; the plastron de fer, or iron breastplate, worn under the gambeson or other armour ; the gambeson, or wambais, a quilted garment, worn either on the chemise de fer or other armour, or alone ; the helmet (sometimes conical), cylindrical, with face-guard perforated for eyes, nose, and mouth, or bowl-shaped, composed of rings set edgeway, with slits for eyes and mouth, or flat topped, with crest ; and the long, pointed, turned-up shoe and leaf-shaped spur. Arms : The sword, mace, battle-axe, guisarme, glaive, cross-bow (balista or arbalest), and shield ; the latter being sometimes bowed, at others with a projecting pike, and at others triangular.

13th Century. Armour : The surcoat, of various forms ; the hauberk of chain mail, to which were sometimes added elbow-plates, with continuous coif and fingerless gloves ; the camail ; the chausson and chausses of chain mail for the legs, to which were sometimes added knee-plates ; the sleeved surcoat ; the ailettes, or wing-pieces, behind the shoulders ; bezanted armour of roundels of metal riveted on cloth or leather, and banded mail ;

the helmet, of various forms ; the shield ; and spurs. Arms : The falchion, anelace, misericorde, pole-axe, halberd, lance, etc.

14th Century. Hauberks of chain mail, with epaulettes, brassarts, and vambraces to protect the shoulders and arms, and other pieces to defend the breast and knees ; the jupon ; the cuirass ; the tabard ; the hauberk, gorget or camail, corslet, jacque or jack of defence, mammelons, chausson, greaves, sollerets, helmets, and bassinets ; gauntlets, etc. Arms : The lance, sword, maillet or marteaux-de-fer, baston or truncheon, glaive, cross-bow, dagger, helmet, shield, pavise, etc.

15th Century. Plate armour, from its simple to its most extravagant form. Arms : The sword, two-handed, with flaming blade, and otherwise ; pointed staff, demi-glaive, pole-axe, and halberd ; javelin, besague or martel, battle-axe, helmet, shield, etc.

16th Century. Fluted armour ; and

17th Century. Mixed, or half armour, the precursor of the discontinuance of body armour.

Examples of arms and armour of each of these periods are abundant both on monumental effigies, on seals, in illuminated manuscripts and other pictorial productions, and in public and private museums.

CHAPTER VIII.

AMONG SEPULCHRAL SLABS AND BRASSES, ETC.

SEPULCHRAL slabs, crosses, and brasses are found in so many old churches and churchyards, and possess so much and such varied interest, that half an hour—or many half-hours—may well be devoted to them. The earliest known examples (of course leaving out of the question the Roman inscribed stones to which I have referred on another page) are apparently of the seventh, eighth, and ninth centuries. A number of these were found in 1833, on the site of the ancient monastery at Hartlepool, founded in the seventh century by St. Begu, who is said to have been the daughter of a powerful Irish prince, Donald III. Having early conceived the idea of devoting herself to the service of God, she was recommended by a holy man to make a vow of celibacy, and on doing so was presented by him with a wonderful bracelet as a memento. Having afterwards been sought in marriage by a prince of Norway, whose suit was encouraged by her father,

she fled from home by night, reached the coast, found a ship on the point of sailing, took a passage, and was landed on the coast of Cumberland, where "St. Bees" still commemorates her name. There she constructed herself a cell, and led a solitary life, until such a life was rendered unsafe by the pirates who infested the coast. She then quitted her cell, went to St. Aidan, Bishop of Lindisfarne, and placed herself in his hands. This saint gave her a black habit and veil, and consecrated her first nun of Northumbria, and obtained for her, from St. Oswald, a grant of land at Heritesei on which to found a monastery. This she did, and it became a large and important establishment. On resigning this charge in 649, St. Hilda was elected to succeed her, and remained until her departure for Whitby. From this time—A.D. 657—no historical notice of the Hartlepool (Heritesei) monastery exists. "Its situation on the coast exposed it to the fury of the Danes in the ninth century, and it was never restored. All traditional recollection, even of its site, was lost; until in the month of July, 1833, in the course of some excavations in a field called 'Cross Close,' about 135 yards south-east of the ancient church of St. Hilda, the cemetery which belonged to it was discovered. Whilst excavating for the foundations of houses, the workmen found, at the depth of three and a half feet from the surface, and resting immediately upon the limestone rock, several skeletons, both male and female,

apparently of a tall race, and remarkable for the thickness of the fore part of their skulls, lying in two rows, in a position nearly north and south. Their heads were resting upon small flat stones, as upon pillows; and over them were other stones, marked with crosses and inscriptions in Runes and in Romanesque letters." One of these early stones, nearly the whole of which have a decided Anglo-Hibernian character, has been of circular form, and bears a cross, which in heraldry might be described as a cross pomée, and fragments of the words REQVIESCAT IN PACE. Another has an incised cross, and an inscription in Runes; the name of a female, HILDITHRYTH, and in the upper limbs A Ω. The next example bears, besides the cross, the name HILDDIGYTH. Another bears a cross, the letters A Ω, and the name BERCHTGYD. Others bore EDILVINA; ORA PRO VERMVND 7 TORHTSVID; ORATE PRO EDILVINI ORATE PRO VERMVND ET TORHT SVID; HANEGNEVB; and other names. Another slab, with a cross of a more elegant and flowing design, bears portions of inscriptions said to read TE BREGVSV GVGVID, and is conjectured to commemorate Breguswid, the mother of St. Hilda. There is a striking similarity between these stones and those of a contemporary early period in Ireland. One of these may be given for comparison. It is from Lismore, and bears a cross, and the inscription — BENDACHT FOR

ANMAIN COLGEN (a blessing on the soul of Colgan), being in memory of Colgan, an eminent ecclesiastic, who died at Lismore in 850. It is shown in Fig. 206.



Fig. 206.

Another good Anglo-Saxon example is preserved in the vestry of Wensley Church, in Yorkshire. It bears a cross patée, with birds and grotesque animals on its limbs, and the name DONFRID in Saxon characters, in relief. At Stow, in Lincolnshire, two of these very early slabs appear, but they bear interlaced patterns and no cross.

Most of these slabs are of small dimensions, simply intended to commemorate the deceased, but not to cover the entire body either when

in or out of a stone coffin. Most of the slabs of a later date are of larger size, and have been either intended as lids to stone coffins, or to be laid in the pavement, or to cover the grave in the churchyard. Some are flat on their surfaces, and others are "coped" or "ridged." The ornament is produced either by incised lines, or by cutting away the stone itself, so as to leave the pattern in relief. In

some instances both styles appear upon the same slab. The design usually consists of a cross, more or less ornate, and some symbol of the station or occupation of the deceased. Occasionally coats of arms and even lettering occur, but these are exceptions to the general rule. In shape, the earlier examples usually tapered from the head to the foot, but a large number are in existence in which the form is rectangular.

Coped tombs were usually sloped in two angles only, but occasionally the ends were also sloped, and the whole sometimes covered with elaborate ornament. A good plain example of this kind of covering is found on the historically interesting tomb of William Rufus, in Winchester Cathedral. In this instance the coped covering is devoid of ornament. Usually the ridge of the cope forms the stem of a cross, the foliated arms and branches of which slope down its sides. The angles of one discovered at Bakewell are carved into a cable pattern, and on one side is a central band of interlaced pattern dividing it into two panels, each of which is filled in with grotesque animals. The other side is also divided into two panels filled in with "knob" work. It is of small size, and has probably, like that of William Rufus, been placed upon a coffin of larger dimensions. In the same church two other coped lids of the twelfth century, the one covered with zigzag ornament, and the other "roofed" as with tiles, are pre-

served. Another of somewhat analogous character is preserved in the crypt at Bedale. Others occur at Dewsbury, York, and other places. One of remarkably fine character, in the church of St. Dionys at York, is profusely decorated with grotesque animals, foliage, and interlaced work.

One of the finest, and at the same time one of the most historically interesting, examples is the memorial slab to the Princess Gundrada, fifth daughter of William the Conqueror, and wife of William, first Earl de Warrenne, at Lewes. This slab, which has lost its lower extremity, bears an inscription so arranged as to form a border all round it, and also to divide the slab into two tablets longitudinally. Each of these two tablets is filled in with an arcade of semicircles springing from lions' heads, the spandrel and each of the arches being filled in with elegant foliage. Consequent upon the lower end of the slab being lost, the inscription is imperfect. What remains, however, is as follows:— STIRPS . GUNDRADA . DV^{CV} . D^EC . EVI . NOBILE . GERMEN . INTVLIT . ECCLESIIS . ANGLOR^V . BALSAMI . MOR^V . MARTIE VIT . MISERIS . FVIT . EX . PIETATE . MARIA . PARS . OBIIT . MARTHE . SV^VPEST . PARS . MAGNA . MARIA . O . PIE . PANCRATI . TESTIS . PIETATIS . ET . EQVI . TE . FACIT . HEREDE . TV . CLEMENS . SVSCYPE . MATR^E . SEXTA . KALENDARV . IUNII . LVX . OBVIA . CARNIS . IFREGIT . ALABASTR^V Which may be thus rendered: "Gundrada, the descendant of dukes, the ornament

of her age, a noble branch, brought into the churches of England the noble balm of her virtues. O martyr . . . to the poor she was (a Martha), for her piety a Mary. Her Martha's part is dead: her Mary's better part survives. O holy Pancras, witness of her piety and justice, receive mercifully a mother who makes thee her heir. The sixth of the kalends of June, a hostile day, shivered the alabaster of her flesh" Here the epitaph ends abruptly, but there can be no doubt that, when perfect, it contained some allusion to the soul as the precious ointment contained in the alabaster box of her body, and corresponding with the *balsama morum* before introduced. In 1845 the leaden coffins containing the actual bones of the Princess Gundrada and her husband, Earl Warrenne, were found.

The most usual decoration upon sepulchral slabs is a cross, with or without stem and steps, and of a more or less elaborate and ornate character. And often it is accompanied with emblems of the state and occupation of the deceased.

Occasionally some early examples, instead of crosses or other emblems, are sculptured in zigzag or herring-bone pattern; in scale ornament; in lozenge pattern; in grotesque devices; in circles; or in guilloche or other ornament. Occasionally a cross occurs at each end of the slab, with a connecting stem or shaft running between or through them, and more or less ornamented with circles, flowing lines, foliage, etc.; and in not a few instances other crosses

are again incised in the spaces at the sides of the shaft. In some examples, too, the cross is quite distinct from the shaft. The crozier and pastoral staff, indicating that the person commemorated was a bishop, abbot, or other prelate, are found either in connection with the cross, or alone, on sepulchral slabs. Of these, beautiful examples occur at Margam, Eccleston (where the crozier is grasped in a hand, as at Romsey, Dorchester, Flaxley, etc.), Durham, and other places. The head of the staff or crozier is, in some of these instances, elegantly foliated.

The chalice, or chalice and paten, is not of unfrequent occurrence; and occasionally the chalice and book are found together. Sometimes the book is open, but more usually closed and clasped. These are, of course, indicative of a priest; certainly of some one beneath the dignity of prior, abbot, or bishop. At Barnard Castle, in addition to an elaborate cross, a chalice, and a book, is an outstretched hand in the conventional form of benediction. The host, or consecrated wafer (frequently simply an incised circle, but in other instances ornamented with a quatrefoil, as at Sproatly), is also found represented on slabs of ecclesiastics. The chalice sometimes lies on the stem of the cross, but is usually at its side.

The sword, supposed to indicate an individual of knightly rank, or at all events a warrior, is a common emblem or device. It is usually by the

side of the stem of the cross. Sometimes no other device appears, but frequently it is found in connection with the bow, the axe, or other object, or, more frequently still, with armorial bearings. At St. Pierre, near Chepstow, is a slab with cross and sword, commemorating Sir Urien de St. Pierre, who died in 1239—*ICI . GIT . LE . CORS . V . DE . SENT . PERE . PREEZ . PVR . LI . EN . BONE . MANERE . KE . IHV . PVR . SA . PASIVN . DE . PHECEZ . LI . DONT . PARDVN . AMEN . PR*. Another at St. John's, Chester, besides the sword and cross, has *HIC : IACET : IOHENNES : LE . SERIAVN*. At Ainstaple is the cross and sword, with helmet and crest, and four shields of arms. At Greystoke are the arms, three cushions, and the inscription—. . . . *IOHES . CODAM . BARO . DE . GRAYSTOK*. At Tynemouth is an inscription alone:  *WALTERVS : C* At Haltwhistle, on one side the stem of the cross is the sword and a shield bearing a fesse between three garbs, and on the other a pilgrim's staff and scrip, or pouch, also charged with a garb. Another, at Heysham, has the sword on one side the cross, and on the other a harp.

Occasionally animals are placed at the foot of the cross in place of steps. A good instance of this occurs at Durham, where what has been described as a cow, but which I take, more probably, to be the evangelistic symbol of the bull of St. Luke, forms the foot of the elaborately foliated cross, on one side of which is the sword, wrapped round with



Fig. 207.



Fig. 208.



Fig. 209.



Fig. 210.



Fig. 211.



Fig. 212.



Fig. 213.

the knight's belt, and on the other an object now defaced. Other evangelistic symbols, as well as the Agnus Dei, are not uncommon on slabs, either at the base, or enclosed in the head of the cross. Other examples bear the cross and sword, with the addition of the bugle-horn. One of the best instances of the introduction of the horn is the slab which tradition assigns to the ballad-hero Robin Hood, but which, from its device, is with much probability ascribed to a member of the family of Bowes. This example bears an elegantly interlaced foliated cross, at the base of which is a shield, and a bugle-horn slung so that the cords cross each other behind the shaft. On one side the shaft is the sword, and on the other are two bows, bent, and crossing each other.

At Rhuddlan, the sword is found in conjunction with a battle-axe; at Worksop, it is accompanied by a dagger; at Newcastle, with the head of a halberd; in another with a large knife; at Cambo, with five pellets; and in other instances with shears and other objects. Occasionally the sword itself forms the shaft or stem of the cross. At Woodhorn, the cross is surmounted by a dagger, which, very curiously, is of exactly the form of the bronze daggers of the Celtic period found in grave-mounds, thus showing that this shape obtained in later times: the cross in this instance is a cross-crosslet.

One of the commonest devices upon early slabs is the shears. This device has given rise to much

controversy and to considerable difference of opinion; some authorities maintaining that it denotes the deceased to have been a wool-stapler or clothier, others that he was a merchant of the staple, and others that it symbolized a female. It is sometimes found in connection with a sword, and

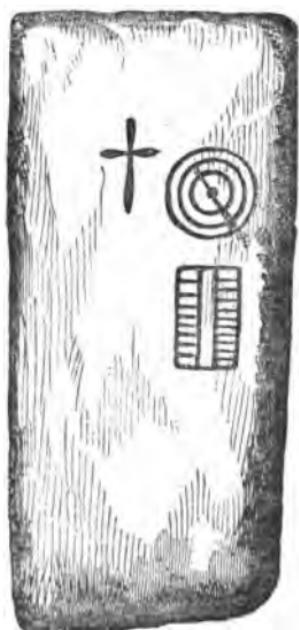


Fig. 214.

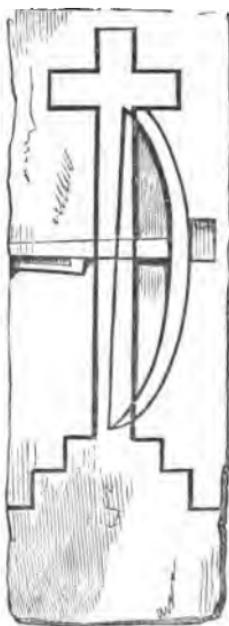


Fig. 215.

at others with a key, or two keys; but usually alone at the side of the shaft of the cross.

At Aycliffe is a double slab. One half has a cross with a sword on one side the shaft, and on the other a pair of pincers and a T square. The other

has on one side the shaft a pair of shears, and on the other a key. There are also three crosses patée on different parts of the slab. The shears are usually of the old shape still retained in our "sheep-shears" of the present day, occasionally varied in details; but instances occur, as at Bawell, where the ends of the blades are broad instead of pointed.

The key has been, like the shears, supposed to be indicative of a female; but these matters require much stronger proof than has been brought forward before they can be received. The comb is, with better reason, supposed to indicate a female. It is of very unusual occurrence in England, but is frequently met with in Scotland. At Darley Dale, on a slab of the twelfth century (Fig. 214), the comb is of the usual "double-tooth" form so usual in the early ages, and of which examples are not unfrequently found with Anglo-Saxon and other interments. Accompanying this on the Darley Dale slab is, besides a small and very simple cross, a circular object which is certainly intended either for a mirror, or for a circular brooch or fermail; the probability being the former, the comb and mirror being so naturally identified the one with the other.

Pincers, hammers, axes, and other handicraft tools are often seen, and probably denote the trade or calling of the deceased. Thus at Aycliffe a pair of pincers occur along with a T square or hammer.

At Chelmorton is an axe, the head of which lies across the shaft of the cross.

Besides the T square, the ordinary carpenter's square, bevel, and compasses sometimes occur.

A unique example of trade device occurs at St. Dionys, York, where on one side the shaft of the cross is a bell, and on the other a cauldron or brazier, in which bell metal would be melted for casting. There can be no doubt that this curious slab covered the remains of one of the old bell-founders of York. Another unique example bears on either side of the shaft of the cross a long straight trumpet, and around the edge the inscription: + GODEFREY : LE : TROVMPPOVR : GIST : CI : DEV : DEL : ALME : EIT : MERCI, thus showing that it commemorates Godfrey the trumpeter.

Heraldic bearings are not uncommon decorations on sepulchral slabs, and these are, naturally, of the highest possible importance in determining to what family they belong. Sometimes the arms occur in connection with other emblems, and, as they usually belong to a later period, are not unfrequently accompanied by inscriptions. At St. Asaph the sword lies diagonally at the head of the slab, and upon it is laid the shield, filling up the entire width. The lower half of the slab bears representations of a hare chased by a hound.

Some very good examples occur at Greystoke and Newton Rigney; the latter bearing on a shield a fesse checquy between six garbs. At Kirkby

Stephen, besides a cross and sword, is a shield bearing six annulets. At East Shaf toe a slab bears two crosses ; close to the shaft of one is a pair of shears, by the other is a sword, across which and the shaft is placed a shield bearing three crosses moline.

Another variety of sepulchral slabs is that upon which a part of the effigy of the deceased is sculptured. In some examples the head of the cross forms a quatrefoil, or tablet, in which, usually cut deep so as to give considerable relief, the head, or bust and hands, of the figure appear. In others the panel, or tablet, is distinct from the cross ; in others, again, the cross is altogether discarded ; and in another variety an equally deeply cut trefoil, or second panel, at the base bears the representation of the feet of the deceased. At Brampton, at the head of the slab, is a sunk quatrefoil, in which are the head and hands of the deceased lady, and at the base an oblong tablet on which her feet are sculptured. It bears the inscription :+ HIC : IACET : MATILDA : LE : CAVS : ORATE : PRO : ANIMA : EI : PAT : NOST. At Moor Monkton a somewhat similar quatrefoil bears the head and hands, and a trefoil the feet, of the deceased person, but there is no inscription. At Kedleston are two quatrefoils side by side, the one bearing the head of a knight of the Curzon family, and the other that of his lady. At Gilling the quatrefoiled head of the cross bears the head and hand of a knight, and its trefoiled base his feet.

On one side the shaft is the knight's crest; on the other his sword, shield, and belt; the shield bearing the arms of Elton. At Hartington, within a cinque-foil cusp at the top, are the bust and hands of a lady, and at the bottom, in an oblong tablet, are her feet.

Sepulchral brasses appear to have come into use in the thirteenth century, and they continued in use for full four centuries, and, indeed, partially so until the present day. The oldest known monumental brass is said to be that of Simon de Beauchamp, Earl of Bedford, 1208, mentioned by Leland as in St. Paul's, Bedford. Several matrices of thirteenth-century ecclesiastics occur at Wells, but the oldest existing known brass in England is that of Sir John D'Aubernoun, at Stoke D'Aubernoun, circa 1277.

Brass, or latten, was not made in England till the sixteenth century, but was imported from Cologne, and hence called "Cullen" plate. A Flemish brass in the Jermyn-street Museum gives the following analysis:—

Copper	...	...	...	...	64
Zinc	...	...	...	...	29·5
Lead	...	...	...	...	3·5
Tin	...	...	...	...	3
					100·

Waller states that the sheets of metal were cast nearly of the size required, in a mould formed of two cakes of loam. The average size of the sheets is 2 ft. 6 in. to 2 ft. 8 in.; the average thickness,

one-eighth of an inch. The metal is often full of flaws and air bubbles. "The foreign brasses, and the Flemish ones in England, consist of a large quadrangular sheet of metal, composed of several plates, the part not occupied being filled with elaborate tabernacle work, with rich accessories. Fine examples in England are Adam de Walsokne and wife, 1349, and Robert Braunche and his two wives, 1634, at Lynn, Norfolk; and Thos. de le Mare, Abbot, at St. Alban's Abbey, 1396 (engraved 1360). In the English brasses executed by guilds of native artists, the figure is cut out and the background of the design is formed by the Purbeck marble slab on which the brass is laid, the canopy, inscription, and other parts consisting of separate pieces. In the early part of the fifteenth century the art reached its greatest perfection, great numbers being produced at that time. They were about the most appropriate, convenient, and lasting kind of memorial as far as material is concerned that could be adopted. They took up little room, were very durable, and suited alike the means of the noble and the squire. Some displayed great delicacy of execution, and were heightened by gilding, enamel, and even jewels. Still does their 'witness live in brass,' as Shakespeare has it, for in some cases the portraits of the person commemorated, the patterns of ecclesiastical vestments, the ornaments of sword belts, and the curious costumes of the fair sex, have been handed down to posterity, faithful copies of those worn by

the deceased. No other source yields such a variety of costume, nor is there any usage of the Middle Ages which does not derive from themselves, or their accessories, at least some indirect illustration. The destruction of brasses at one time or other has been immense, and one can scarcely enter an old church without finding several slabs despoiled of their brasses, and though objects of archæological interest are better preserved than formerly, a great many have disappeared in comparatively recent times. The loss cannot be estimated at less than twelve thousand. The Romans punished by death or maiming any person who defaced the monuments of the dead (Solon making a special law for this purpose), and Queen Elizabeth, with commendable thought, tried to put a stop to the destruction of tombs and brasses, and issued a proclamation to that effect in the second year of her reign, each copy being signed by her own hand. This recites the injury done by 'sundrie people, partly ignorant, partly malicious, or covetous, by which meanes not only the Churches remaine at this present day spoiled, broken and ruined, to the offence of all noble and gentle hearts, and the extinguishing of the honourable and good memory of sundry vertuous and noble families deceased, but also the true understanding of divers families in this Realme is thereby so darkened as the true course of their inheritance may be hereafter interrupted.' Fuller says (Ch. Hist. ix. § 1, 36), 'Her princely care took this desired effect

that it stopped the main stream of sacrilege herein, though some by-rivulets thereof ran still in private churches, in defiance of all orders provided to the contrary.' At the destruction of the monasteries the brasses on the tombs were frequently sold with the church plate, and when churchwardens were in want of money for 'beautifying' the church, they did not hesitate to sell the metal from the tombs, and unblushingly entered the fact in their account books. They were frequently laid down to other persons, or re-engraved on the other side, and hence called *palimpsests*. These are of three kinds—first, those in which the plate is engraved on the reverse side of the original; second, in which the original figure is altered and appropriated to another person of later date and costume; third, the original figure remains unaltered, but a fresh inscription, shield, etc., are introduced. The latter are very puzzling, and it is very difficult to understand them unless one knows the history of the brass. Weever (*Fun. Mon.*, 427) tells us of an incumbent of St. Leonard's, Shoreditch, stripping the gravestones of their brasses: 'The plates with the inscription of such monuments as were of more antiquitie were all taken away for covetousnesse of the brasse, by one *Dr. Hammer* (as I have it by relation of the inhabitants), Vicar of this Church, which he converted into coine, and presently after (ashamed belike of such a detestable act) went over into Ireland, and there ignominiously ended his dayes.' At Yarmouth, in 1551,

the Corporation ordered the brasses to be cast into weights and measures for the use of the town."

About four thousand brasses remain in England. They represent ecclesiastics of various degrees; knights, and other military men; civilians of different classes; ladies; and children, and are of every possible style and variety, and are frequently rich in armorial decoration, in foliated and other crosses, and in canopies, diapering, etc., etc.

Paper is made of great length and of considerable width on purpose for taking rubbings of brasses, but it is expensive. For ordinary purposes the common lining paper used by paper-hangers, and sold in rolls at about a penny a yard, is all that can be needed. It can be bought at any paper-hanger's shop. Heel-ball, made in large cakes specially for the purpose of rubbing, is better than the small cakes to be bought of any shoemaker. Leather is a good substance for rubbing with, using the black side.

Of altar tombs and other monuments it is not necessary to speak at length. That of King John (1216) is said to be the earliest known example; and the earliest instance of a monument bearing a skeleton is stated to be of 1241. Cross-legged effigies are believed to be Crusaders who had vowed to accomplish, or had accomplished, a pilgrimage to the Holy Land, and had either died without fulfilling it, or compromised by payment of money, or by finding a substitute. "The fashion declined," says

Mr. Pigott,* whom I have quoted, "soon after the last Crusade, which took place in 1270. Edmund Crouchback, Earl of Lancaster and Derby, who died 1295, and Aylmer de Valence, Earl of Pembroke, who died 1323, and Sir William Fitz-Ralph, are among the last so represented. Some authorities consider it a mere fashion in monumental sculpture which prevailed during the latter half of the thirteenth and beginning of the fourteenth century, indicating that the deceased possessed judicial authority. The 'good' Sir James Douglas is commemorated by a cross-legged effigy in St. Bride's Church, Douglas. He was father of Sir Archibald, 'the grim' Lord of Galloway, afterwards third Earl of Douglas. Sir James lost his life against the infidels in Spain, bearing the Bruce's heart to the Holy Land, thus being entitled to the honours of a Crusader. Several figures on the west front of Wells Cathedral are represented in this manner. Flaxman, in his 'Lectures on Sculpture,' thinks that the general design of this work was brought to England by some of the Crusaders. William Longespée, second Earl of Salisbury of that surname, who is known to have been a Crusader under Louis IX., and was killed at Cairo in 1250; and Walter Stewart, Earl of Menteith, have cross-legged effigies. At Cashel, co. Tipperary, are four very remarkable cross-legged effigies, three females and a knight. They were found in a crypt under the Franciscan

* "Reliquary," vol. ix. p. 193.

Abbey Church, founded and created by William Hacket, in the reign of Henry III. (Camden's Brit., iii. 523). The ladies may have taken a vow of pilgrimage which entitled them to that position. Gough, in his 'Sepulchral Monuments,' gives an instance of a lady of the family of Mephan, in the church of Howden, Yorkshire, in that position; and Mills, in his 'History of the Crusades,' states that there are others, but gives no examples. Mr. Du Noyer considers that the Cashel effigies were the work not of Irish, but of Anglo-Norman artists, and that they were not executed in Ireland, but sent from England as they were required, in order to ornament the tombs of the English nobility who died at Cashel, or in its neighbourhood. They have all been cut down either at the end or sides, because, perhaps, the sculptured lids had been made too large for the coffins.

"In Danbury Church, Essex, are the effigies, *in wood*, of three cross-legged knights, probably of the family of St. Clere. One knight is in a praying attitude, his hands being folded together, his sword sheathed. Another is in the act of drawing his sword; and the third is represented as returning his sword into the scabbard: the lion is also in a position different from the other two, as he neither looks directly to nor from the face of the knights, but straight forward. Examples of cross-legged figures or brasses are Sir Roger de Trumpington, 1289 (known to have been a Crusader), at

Trumpington, Cambridge; Sir Robt. de Septvans, 1306, Chartham, Kent; and a knight of the Bacon family, circa 1320, at Gorleston, Suffolk. A popular error has assigned cross-legged effigies to Knights Templars. Three of the six cross-legged effigies in the Temple Church represent persons who, though buried there, were not of the order; and another of them was brought, in 1682, from Yorkshire, and represents Lord de Ros, who was not a Templar. In 1846, in the parish church of Brougham, Westmoreland, a portion of the side of the vault next to the south wall of the chancel fell down, and discovered a cavity in which lay a skeleton, with its feet to the east, *cross-legged*, the left being thrown over the right. Near the head was found a singular vitrification, shaped like half an egg, the colour of the glass being dark blue, but the outer surface covered with a wavy line of black and white alternately, resembling enamel. This has been ascertained to be Phoenician workmanship, and it is conjectured to have been a talisman brought from the East and buried with the deceased as his most precious relic. The stone that lay over the body is an incised slab of freestone. Its date is of the twelfth century, and family tradition has assigned this tomb to Udardus de Brohan, who flourished between 1140 and 1190."

CHAPTER IX.

AMONG COINS.

IT is a popular error that coins were unknown in Britain at the time of Cæsar's invasion. This opinion of course takes its origin from the passage — “*Utuntur aut ære aut annulis (taleis) ferreis ad certum pondus examinatis pro nummis*,” which occurs in the description of Britain given in the “Commentaries on the Gallic War.” “Not only, however, is the passage corrupt,” says Mr. Evans,* the best authority on the subject, “but Mr. Hawkins has shown that in a great number of MSS. the words ‘*aut nummo aureo*’ occur after ‘*ære*;’ so that it would, after all, appear probable that, so far from Cæsar affirming that there were no coins in Britain at the time of his invasion, he expressly mentions a British currency of gold coins. The contrary opinion has, however, been supposed to derive additional support from two passages in the letters of Cicero, whose brother

* “The Coins of the Ancient Britons,” 1864.

accompanied Cæsar in his second expedition against Britain. In writing to Trebatius he makes use of the expression—‘*In Britanniâ nihil esse audio neque auri neque argenti.*’ And, again, he writes to Atticus: ‘*Neque auri scrupulum esse ullum in illâ insulâ.*’ But both the letters in which these passages occur are written in a jocose style, and the expression must be regarded as hyperbolical and significant of the disappointment felt at Rome on account of the small amount of booty resulting from the British expedition as compared with what was obtained in Gaul (though Strabo says it was considerable), rather than as authorizing the belief that not only was there no coinage in Britain at the time, but there was a total absence of the precious metals. So far, indeed, was Cicero himself from believing this to have been the case, that he qualifies the remark with an ‘*id si ita est;*’ and in his very next letter to Atticus he writes that he had heard from Cæsar of the submission of Britain—‘*nulla prædâ, imperatâ tamen pecunia.*’ And Cæsar himself, referring to the same subject, records that before leaving Britain—‘*obsides imperat et quid in annos singulos vectigalis populo Romano Britannia penderet, constituit.*’ Dion Cassius calls this yearly tribute φόρον ἐπήσιου; and Eutropius records that Julius ‘*Britannos stipendiarios fecit.*’ Suetonius also distinctly affirms, ‘*pecunias et obsides imperavit.*’”

Taking all circumstances into consideration, and

carefully comparing one with another, Mr. Evans comes to the conclusion that we should not greatly err if we assign to the earliest British coins a date somewhere between 150 to 200 B.C. These are extended to a comparatively late period. British coins were made of gold, silver, and bronze, and have been found in various localities, sometimes in hoards, in most parts of the kingdom. It is, however, a curious fact that in some districts, Derbyshire for instance, which were not only inhabited by, but were strongholds of, the ancient Britons, no discoveries of coins are known. It would appear from this that some tribes used a currency, while others did not. The devices are rude adaptations, or rather imitations, of those upon Greek and, later, upon Roman coins; the principal model being the coinage of Philippus, which bore on one side the laureated bust of Apollo, and on the other a charioteer in a *biga*, with the name of Philippus beneath. These were copied more or less closely by the Gauls

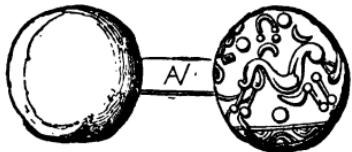


Fig. 216.

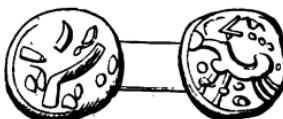


Fig. 217.

and Britons, and the gradual decadence of the original type may easily be traced by comparing a number of examples. Other devices, more purely British, were afterwards produced. Many of the

early coins are unifaced, *i.e.* one side is plain, while the other bears the device. They are usually



Fig. 218.

slightly convex on one side, and concave on the other, and are, like their Greek prototypes, thicker in proportion to their size than are Roman coins. Some are inscribed, but others are not. Their



Fig. 219.

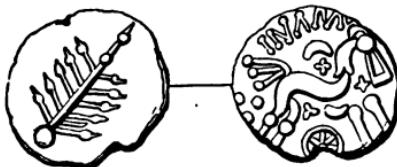


Fig. 220.

general character will be understood from the engravings.

Roman coins, which are "plentiful as blackberries" all over the land, were both imported to, and struck or cast in, this country. The study of the coins found here is therefore the study of the currency of the Roman empire. We have no traces of a Roman mint in this country until the time of Diocletian and Maximian, on some of which the letters LON and ML are supposed to signify

Londinium (London) and *Moneta Londinensis* (Money of London). The probability, however, is that coins were fabricated long before these, and without bearing any indication of the place where made. RS and RSR are supposed to indicate money struck at *Rutupiæ* (Richborough), as are also RSA, MRS (*moneta Rutupiis signata*), RSP (*Rutupiis signata pecunia*); C, MC, SC, MSC, and SPC in the same manner signifying *Clausentum* (Bittern), *moneta Clausenti, signata Clausenti, moneta signata Clausenti, and signata pecunia Clausenti*; M, MS, and MSP, *Magna* (Kenchester), and so on. Clay or terra-cotta moulds for casting coins, probably spurious ones, have been discovered in Yorkshire and other localities.

From the time when Claudius set his foot on our island, "a regular series of imperial coins, commemorative of victories in Britain by the emperors or their military commanders, was issued." Those of Claudius bearing a triumphal arch with the inscription DE BRITANN ("over the Britons"), and those of Hadrian with the inscription ADVENTVS AVG BRITANNIÆ ("the advent of the Augustus to Britain"), as well as those of the same emperor bearing the figure of Britannia with the word BRITANNIA, are well known, and those who desire to prosecute this subject will find much useful information in Akerman's "Coins of the Romans relating to Britain."

As I have said on another occasion, the Romans

seem to have sown their coins broadcast over the whole length and breadth of the land, to have thrown them about as they would useless chaff, to have buried them in urns in every conceivable place, and to have deposited them, either singly or otherwise, in the barrows of their predecessors. It is unnecessary to speak, then, of the varieties of coins which are from time to time turned up by the antiquary in his researches into the early grave-mounds. They form but a thousandth part of those which are found away from interments.

It may, however, be well, as showing the relative proportions of the coins of different emperors found in this country, to give the following analysis, by Mr. C. Roach Smith, of more than eleven hundred coins picked up at different times in one locality—Richborough in Kent.

Augustus	7	Faustina the elder . .	3
Agrrippa	1	Marcus Aurelius . .	4
Tiberius	2	Faustina the younger .	5
Antonia, wife of Drusus, senior	1	Lucius Verus	2
Caligula	2	Lucilla	1
Claudius	15	Commodus	2
Nero	11	Severus	5
Vespasian	13	Julia Domna	3
Titus	1	Caracalla	3
Domitian	10	Julia Mæsa	1
Nerva	1	Severus Alexander . .	7
Trajan	7	Gordianus Pius . .	6
Hadrian	5	Philippus	4
Sabina	5	Valerianus	3
Ælius Cæsar	1	Valerianus, junior . .	1
Antoninus Pius	5	Gallienus	19
		Salonina	4

Postumus	10	Fausta	2
Victorinus	14	Crispus	18
Marius	1	Delmatius	1
Tetricus	13	Constantine II. . . .	98
Claudius Gothicus	15	Constans	77
Quintillus	2	Constantius II. . . .	42
Aurelian	4	Urba Roma	52
Tacitus	5	Constantinoplis	60
Florianus	1	Magnentius	21
Probus	7	Decentius	4
Carinus	1	Julianus II. . . .	7
Numerianus	2	Helena	1
Diocletianus	8	Jovianus	1
Maximianus	16	Valentinianus	22
Carausius	94	Valens	39
Allectus	45	Gratianus	49
Constantius I. . . .	4	Theodosius	14
Helena	8	Magnus Maximus	6
Theodora	13	Victor	3
Galerius Maximianus	1	Eugenius	1
Maxentius	2	Arcadius	27
Romulus	1	Honorius	8
Licinius	12	Constantine III. . . .	1
Licinius, junior	1		
Constantine the Great	149	Total	1144

Of these coins fifty-six only were of silver, six of gold, fifteen of billon, or base silver, and the remainder were of brass, the greater portion being, naturally, what are denominated "third brass."

The coins of the Saxons consisted of sceattæ and stycæ—the former of silver, and the latter of copper. The sceatta, or penny, is thin and of about the size of our



Fig. 221.



Fig. 222.

shilling ; and the styca, whose value was the eighth part of the penny—a half-farthing, in fact—is small and somewhat thick for its size. But little is known, even yet, respecting the money issued from the mints of the Heptarchy, except that the coins were of the same weight as those of later Saxon pennies, and that they bore the moneyer's name ; the addition of the place of mintage being rare, and almost confined to the ecclesiastical issues of Canterbury. Beorna, in 749, is said to have been the first East Anglian monarch who coined sceattæ. When the kingdoms of the Heptarchy were united in one sovereignty, the mints were regulated by laws framed by the Wittenagemote, or Great Council of the nation ; but it was not until the time of *Æthelstan* (924–940) that it was appointed there should be one kind of money throughout the whole realm, and that no one should coin but in a town. According to Stow, “*Æthelstan* made seven coining mints at Canterbury, four for the king, two for the archbishop, and one for the abbot ; at Rochester three, two for the king and one for the bishop. Besides these, in London eight, in Winchester six, in Lewes two, in Chichester one, in Hampton two, in Shaftesbury two, and in every other town one coiner.” The coins remaining prove this, and show there were very few considerable towns without a mint ; for besides those particularly mentioned in *Æthelstan's* law, there are coins of Derby, Bristol, Evesham, Exeter, Gloucester, Ipswich, Lincoln, Nor-

wich, Shrewsbury, Thetford, Wallingford, Worcester, York, and other places. The probability is that the custom of impressing on coins the name of the town of their mintage began in the early part of the reign of *Æthelstan*.

One of the largest "finds" on record is that made at Cuerdale, where, besides a large number of foreign pieces, the following were found:—

		A.D.
2	<i>Æthelred, East Anglia, (?) about</i>	860.
23	<i>Æthelstan</i>	870 to 890.
1	<i>Ciolwulf, Mercia</i>	874.
857	<i>Alfred</i>	872 to 901.
45	<i>Eadweard</i>	901 to 925.
1	<i>Archbishop Ceolnoth</i>	830 to 870.
59	<i>Archbishop Plegmund</i>	891 to 923.
2	<i>Sitric.</i>	
1770	<i>St. Eadmund.</i>	

Crosses were of frequent occurrence on *sceattæ*,* and appeared in considerable variety. Two of these are shown in the engravings (Figs. 221 and 222), which will also serve to show the general character of the coins themselves.

Of coins from the Conquest downwards it will only be needful to give the following list which I have prepared, and an engraving or two of some of the kinds. The list gives the various denominations of coins issued in each reign.

* It may be interesting to note that in the name *sceatta*, the Saxon penny, the *sc* is pronounced soft, like *sh*, and would therefore be almost *sheatta* or *shotta*; hence from this is derived our vulgar word "shot" for money, *i.e.* "pay your shot" (pay your money), and "not a shot in his locker" (not a penny in his chest or cupboard).

WILLIAM I.	Silver. Pennies only. In this reign are also coins of Stephen and his queen, Matilda; of Matilda alone; of Henry, Bishop of Winchester; of Robert, Earl of Gloucester; of Eustace and of William, sons of Stephen; and of Henry Newburgh, Earl of Warwick.
WILLIAM II.	
HENRY I.	
STEPHEN	
HENRY II.	Silver. Pennies only.
RICHARD I.	
JOHN	
HENRY III.	Gold. Penny (to pass for twenty pence, and afterwards for twenty-four pence, or two shillings). Silver. Penny.
EDWARD I.	
EDWARD II.	Silver. Penny, half-penny, and farthing.
EDWARD III.	
RICHARD II.	Gold. Florin, half-florin, quarter-florin, noble, half or maille noble, quarter or ferling noble.
	Silver. Groat, half-groat, penny, half-penny, and farthing.
HENRY IV.	Gold. Noble, half-noble, and quarter-noble. Silver. Groat, half-groat, penny, half-penny and farthing.
HENRY V.	
HENRY VI.	Gold. Noble, half-noble, quarter-noble, angel, angelet or half-angel.
	Silver. Groat, half-groat, penny, half-penny, farthing.
EDWARD IV.	Gold. Rose noble or rial, half-noble or rial, quarter-noble or rial, angel, angelet or half-angel.
EDWARD V.	Silver. Groat, half-groat, penny, halfpenny, farthing.
RICHARD III.	Gold. Angel and angelet.
	Silver. Groat, half-groat, penny, half-penny.



223 and 224. Pence of William I. or II.
 225. Penny of Edward I.
 226. Angel of Henry VI.
 227. Shilling of Henry VII.
 228. Quarter-noble of Henry IV.
 229. Gold penny of Henry III.

HENRY VII.	Gold. Rose noble or rial, angel, angelet, sovereign or double rial, double sovereign or four rials. Silver. Testoon or shilling, groat, half-groat, penny, half-penny, farthing.
HENRY VIII.	Gold. Double sovereign, sovereign, pound sovereign, half-sovereign, rose noble or rial, George noble, angel, angelet or half-angel, quarter-angel, crown, half-crown. Silver. Testoon or shilling, groat, half-groat penny, half-penny, farthing.
EDWARD VI.	Gold. Six-angel piece, treble sovereign, double sovereign, sovereign or double rial, pound sovereign, half-sovereign, angel, angelet crown or quarter-sovereign, half-crown. Silver. Crown, half-crown, testoon or shilling, sixpence, groat, threepence, half-groat, penny, half-penny, farthing.
MARY I.	Gold. Sovereign or double rial, rial, angel, angelet. Silver. Groat, half-groat, penny.
PHILIP & MARY	Gold. Angel, angelet. Silver. Shilling, sixpence, groat, half-groat, penny.
ELIZABETH	Gold. Sovereign or double rial, rial, angel, angelet or half-angel, quarter-angel, pound sovereign, half-sovereign, quarter-sovereign or crown, one-eighth sovereign or half-crown. Silver. Crown, half-crown, shilling, sixpence, groat or fourpence, threepence, half-groat or twopence, three-halfpence, penny, three-farthings, half-penny, farthing (?).
JAMES I.	Gold. Pound sovereign, half-sovereign, crown or quarter-sovereign, one-eighth sovereign or half-crown, laurel or unit, double crown or half-laurel, British crown or quarter-laurel, half British crown, thistle crown, rose rial or 30s. piece, spur rial or 15s. piece, angel, angelet. Silver. Crown, half-crown, shilling, sixpence, half-groat, penny, half-penny.

CHARLES I.	Gold. Treble unit or £3 piece; unit, broad, or 20s. piece; double crown, half-broad, or 10s. piece; crown, British crown, or 5s. piece; angel, and some siege pieces.
	Silver. Pound or 20s. piece, half-pound or 10s. piece, crown or 5s. piece, half-crown, shilling, sixpence, groat, threepence, half-groat, penny, half-penny.
COMMONWEALTH	Also numerous siege pieces, which may be briefly enumerated as follows:— Beeston Castle, 2s., 14d., 13d., 1s., 11d.; Carlisle, 3s., 1s.; Colchester, 1s.; Newark (lozenge-shaped), half-crown, 1s., 9d., 6d.; Pontefract, 1s.; Scarborough, crown (5s.), half-crown, 2s. 1s. 6d., 1s.; other mintages of the same value, and of 7d. and 4d. each.
	Gold. Twenty shilling piece, 10s. piece, 5s. piece. Silver. Crown, half-crown, shilling, sixpence, half-groat, penny, half-penny.
PROTECTORATE, OLIVER CROMWELL	Gold. Fifty shilling piece, broad or 20s. piece, half-broad or 10s. piece. Silver. Crown, half-crown, shilling, ninepence, sixpence.
	Gold. Broad or 20s. piece, half-broad or 10s. piece, quarter-broad or 5s. piece, five-guinea piece, two-guinea piece, guinea, half-guinea. Silver. Half-crown, shilling, sixpence, groat, threepence, half-groat, penny. Also some siege pieces.
CHARLES II.	Copper. Half-penny, farthing. Tin. Farthing.
	Gold. Five-guinea piece, two-guinea piece, guinea, half-guinea. Silver. Crown, half-crown, shilling, sixpence, groat, half-groat, threepence, penny. Gun money. Crown, half-crown, shilling, sixpence. Tin. Half-penny, farthing.
JAMES II.	

WILLIAM III.	Gold. Five-guinea, two-guinea, guinea, and half-guinea pieces. Silver. Crown, half-crown, shilling, sixpence, groat, threepence, half-groat, penny. Copper. Half-penny, farthing. Tin. Half-penny, farthing.
AND MARY II.	
WILLIAM III.	
ANNE	
GEORGE I.	Gold. Five-guinea, two-guinea, guinea, and half-guinea pieces. Silver. Crown, half-crown, shilling, sixpence, groat, threepence, half-groat, penny. Copper. Farthing.
GEORGE II.	
GEORGE III.	
GEORGE IV.	
	Gold. Five-guinea, two-guinea, guinea, half-guinea, and quarter-guinea pieces. Silver. Crown, half-crown, shilling, sixpence, groat, threepence, half-groat, penny. Copper. Half-penny, farthing.
	Gold. Five-guinea, two-guinea, guinea, and half-guinea pieces. Silver. Crown, half-crown, shilling, sixpence, groat, threepence, half-groat, penny. Copper. Half-penny, farthing.
	Gold. Guinea, half-guinea, one-third guinea or 7s., quarter-guinea or 5s. 3d. pieces, sovereign, half-sovereign. Silver. Crown (5s.), half-crown, shilling, sixpence, groat, threepence, half-groat, penny. Dollars and half-dollars were also counter-struck with a small head of the king and made current, and bank tokens for various sums were also issued.
	Copper. Twopence, three-halfpence, penny, half-penny, farthing.
	Gold. Five sovereign, double sovereign, sovereign, half-sovereign. Silver. Crown, half-crown, shilling, sixpence, groat, threepence, half-groat, penny. Copper. Penny, half-penny, farthing.

WILLIAM IV.	Gold. Double sovereign, sovereign, half-sovereign. Silver. Crown, half-crown, shilling, sixpence, groat or fourpenny piece, threepence, half-groat, three-halfpence, penny. Copper. Penny, half-penny, farthing.
VICTORIA.	Gold. Five sovereign, double sovereign, sovereign, half-sovereign. Silver. Crown, half-crown, florin or 2s. piece, shilling, sixpence, groat or fourpence, threepence, half-groat, penny. Copper. Penny, half-penny, farthing, half-farthing. Bronze. Penny, half-penny, farthing.

Traders' tokens were issued in the middle of the seventeenth century in almost every town and village in the kingdom, and the same kind of issue obtained at intervals until the early part of the present century. Those who wish to study seventeenth-century tokens cannot do better than consult Mr. Boyne's excellent volume on the subject.



Fig. 230.

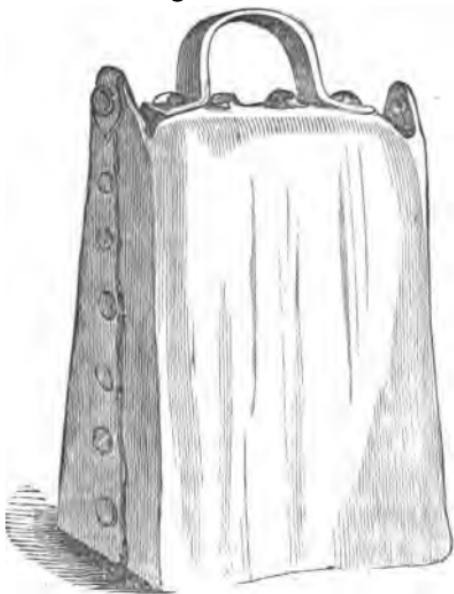


Fig. 231.

CHAPTER X.

AMONG CHURCH BELLS.

A VERY fascinating study, but one that has been sadly neglected, is that of church bells, and therefore a short time may well be devoted to learning something of their history, and more of their historical interest and importance.

They were, it is more than probable, introduced into this country long before the time of the coming of Augustine, in 596. It is said that, in 550, Odoceus, Bishop of Llandaff, removed the bells from that cathedral during a time of excommunication; and earlier still they are assumed to have been in use in Ireland as early as the time of St. Patrick, who died in A.D. 493. In those days much superstitious feeling, as in later ages, hung around the bells, and many sweetly pretty and very curious legends are known respecting them. Thus it is said St. Odoceus of Llandaff, "being thirsty after undergoing labour, and more accustomed to drink water than anything else, came to a fountain in the vale of Llandaff, not

far from the church, that he might drink, where he found women washing butter, after the manner of the country, and sending to them his messenger and disciples, they requested that they would accommodate them with a vessel that their pastor might drink therefrom; who ironically, as mischievous girls, said, 'We have no other cup besides that which we hold in our hands'—namely, the butter; and the man of blessed memory taking it, formed one in the shape of a small bell, and he raised his hand so that he might drink therefrom, and he drank. And it remained in that form—that is, a golden one—so that it appeared to those who beheld it to consist altogether of the purest gold; which, by Divine power, is from that day reverently preserved in the church of Landaff, in memory of the holy man, and it is said that, by touching it, health is given to the diseased."

The earliest known form of bells in our own country, both Anglo-Saxon and Irish, appears to have been that of an inverted wedge; not cast, but made of plates of iron, riveted together, of more or less quadrangular form. They were not, however, intended for suspension, but were used as *tintinnabulæ*, or hand-bells. Examples of these are preserved in various collections; their general shape will be understood from the engraving (Fig. 231), from one in my own possession. It is ten inches and a half in height, and is formed of two plates of iron riveted together and brazed. Many of the Irish

examples are enclosed in rich and costly cases, elaborately decorated with patterns in relief and in enamel.

The towers of Anglo-Saxon and Norman churches show that *peals of cast bells*, some of large size, must have been in use in those days; indeed, Ingulphus says, in speaking of the peal of seven bells at Crowland Abbey, “*Nec erat tunc tanta consonantia campanarum in tota Anglia.*” The Crowland peal was destroyed by a fire in 1091: the names of the bells were Pega, Bega, Tatwin, Turkeyl, Betelin, Bartholomew, and Guthlac; and they were succeeded by two small bells, given to the monks by one Fergus, a brazier, of Boston. An earlier instance of direct evidence is afforded by the Anglo-Saxon MS. of St. Æthelwold’s benedictional, by Cædmon. In this MS. a tower is shown, in which hang four, evidently cast, bells of “sugar-loaf” form. Other illuminations also show bells hanging in towers, and prove that they were in use for actual ringing, not striking, at an early date. Egbert in 750 commanded “every priest at the proper hour to sound the bells of his church, and then go through the sacred offices of God.” Indeed, it may safely be said that, from the first establishment of Christianity among us down to the present time, bells have been a distinguishing feature of our country, and peal-ringing our national peculiarity.

In the illuminated MSS. of the thirteenth and fourteenth centuries, bells are represented of much

the same general form as those of the present day. Mediæval bells were, however, not so "squat" and "dumpy" as, but longer and narrower than, modern ones. Mr. Ellacombe states the oldest known dated bell in England to be St. Chad's, Claughton, and to bear the date 1296; but I fear this statement must be received with great caution. Early *dated* bells, *i.e.* pre-Reformation dated bells, are of very rare occurrence. Bells were formerly blessed, or consecrated, in honour of some particular saint—frequently the patron saint of the church where intended to be placed—and this is still occasionally done even now. The inventories of church goods taken in the reign of Edward VI. afford a vast deal of interesting information as to the number of bells then in the different church-towers, as well as of hand-bells, etc., used for other purposes. Thus, at Sawley, there were "ij bells in the steple, j saunte bell, j hand-bell, j sacringe bell;" at Sandiacre, "ij hand-bells," and "in the belhowse ij bells, j sauns bell;" at Breaston, "ij bells in the steple, j lytill hand-bell, j sakeringe bell;" at Bonsall, "iiiij small bells, j sanctus bell, iij bells in Stepul;" at Ashbourne, "ij bellez in the steple, j clocke uppon j of them, j broken bell, j lyttle bell called a sanctus bell, ij hand-bellez, ij sacrynge bellez hangyng before the auter of grene;" at Wirksworth, "iiij bells, j sanctus bell, ij handebells, and j lytle bell in the quyre"—*cum multis aliis*. The "sacring bell" was rung at the moment of the elevation of the host; in some



Figs. 232 to 235. Examples of Lettering on Bells.

places a peal of small bells, worked by a wheel, was rung in place of the tinkling of a single "sacring;" the "Sanctus," or "Saunce bell," hung in the small bell-cote often seen in the apex of the chancel gable.

The decorations upon bells consist of encircling inscriptions, usually on the haunch; encircling borders both on the crown, the haunch, the waist, the sound-bow or rim, and of more or less elaborate design; crosses of every conceivable character; figures of saints and angels; evangelistic and other symbols; heraldic bearings; heads of kings and queens; grotesque figures derived from mediæval literature; ornaments of various kinds—roses, fleurs-de-lis, crowns, quatrefoils, etc., etc.; and marks and devices, as well as initials and names, of founders. These it is unnecessary specially to recount. The founders' marks, however, are so important that one or two guiding examples must be engraved.

The variety of lettering used upon bells is somewhat remarkable, and many admirable examples, which might well be taken as copies for many decorative purposes, are exhibited upon them. On early bells the inscriptions are frequently wholly in Lombardic capitals, or in "text," *i.e.* old English, or in this same text with Lombardic capitals or initial letters. Often, too, they are in what are generally called "Gothic" capitals, and very commonly in plain Roman capital letters. Sacred monograms were introduced in different kinds of lettering, and



Figs. 236 to 241. Examples of Founders' Marks.

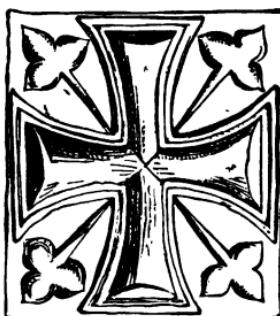
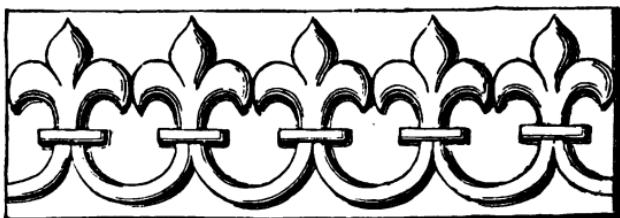


Fig. 242 to 247. Examples of Bell Ornaments.

with extremely good effect, both at the commencement and in the course of the inscriptions, and also separately with the marks and other devices. Frequently, too, the sacred monogram of the Blessed Virgin, the Lombardic Ω , is given, and is usually crowned. Other letters are also sometimes crowned in a similar manner.

Inscriptions upon bells may be divided into several classes. Some of the earliest are simple dedications to our Saviour, to the Blessed Virgin, or to some saint; or are Leonine or monkish hexameters; invocations and expressions of praise; rhymes upon the uses of bells; expressions of loyalty; names of donors, ministers, or churchwardens; historical references; doggerel rhymes on the founding or cost of the bell; and many other varieties. Of the first of these the most usual formulæ are:—"Jesus;" "Jesus Nazarenus Rex Judeorum;" "Jesus Nazarene Rex Judæorum fili Dei Miserere Mei;" "Jesus be our speed;" "Fili Dei Miserere Mei;" "Est mihi collatum IHC istud nomen amatum;" "Sit nomen IHC benedictum;" "Protege pura via quos convoco Virgo Maria;" "Virginis Egregie Vocor Campana Marie;" "Maria;" "God help Sancte Maria;" "Ave Maria;" "Ave Maria Gracia Plena;" "Ave Maria Gracia Plena Dominus Tecum;" "Sum Rosa pulsata Mundi Maria vocata;" "Stella Maria maris succione piissima nobis;" "Serva Campanam Sancta Maria Sanam;" "Sum Virgo Sancta Maria;" "Ecce Maria Virgo."

Besides the archangels Gabriel and Michael, almost every saint in the Church is honoured upon bells, most of them with the "Sancte," or the usual invocation, "Ora pro nobis," at the commencement or end. Thus :

- + Sancte Gabrielis.
- + Sce Georgi O P N.
- + Sancte Laurente Orate pro nobis.
- + Sancte Catarina.
- + Sancta Michael.
- + O Sancte Stephane.
- + Dulcis sisto Melis Campana Vocor Gabrielis.
- + Hic Nova Campana Margareta est Nominata.
- + Sancta Anna ora pro nobis.
- + Sancte Paule ora pro nobis.
- + Sancte Johannes ora pro nobis.
- + Sancte Toma O.
- + Sancte Gregori O N.
- + S Thomas Treherne.
- + Sancta Agatha ora pro nobis.
- + Sancte Jacobe ora pro nobis, etc.

Words of praise, such as "Gloria in Excelsis Deo ;" "Alleluja ;" "Soli Deo Detur Gloria ;" "Laus Deo Gratia Benefactoribus ;" "Laus et Gloria Deo ;" "Praise God ;" "Give thanks to God ;" "O Lord, how glorious are thy works ;" "All glory be to God on high ;" "All glory to God ;" "Holy, holy, holy, Lord God of Sabaoth," are also of frequent occurrence.

Of Leonine—or monkish—hexameters, which research has proved to have been in use as early as the third century, but which are said to have taken their name from one Leoninus, a monk of Marseilles,

who lived about 1135, the following examples will be sufficient:—

- + *Est michi collatum ihc iliu*n* nomen amatum.*
- + *Protege Virgo pia quos convoco sancta maria.*
- + *Voce mea viva depello cuncta nocina.*

The last is curious as an illustration of the belief that the ringing of bells would drive away thunder and lightning, storms and tempests, demons and unquiet spirits. It may be translated, "By my lively voice I drive away the saucy boys."

- + *Plebs ois plaudit ut me tam sepius audit;*

which may be translated, "All the people rejoice when they hear my voice," and is of frequent occurrence.

Me melior vere non est campana subete,
meaning:—

"A better bell than I
Cannot be found under the sky."

- + *Misteriis sacris replet nos dea iohannis.*

Others are as follows:—

- + *Sum Rosa Pulsata Mundi Katerina Vocata.*
- + *Vox Augustini Sonat in Aure Dei.*
- + *Per Quos fundator Jacobus precibus tueatur.*
- + *Iou cum fiam cruce custos laudo Mariam.*
- + *Digna Dei Laude Mater dignissima gaudet.*

Among loyal inscriptions, and those of Church and State, the most frequent are:—

"For Church and King we always ring."

"God bless the Queen and save the Church."

“I was made in hope to ring
At the crownacion of our King.”

“God preserve Queen Anne and the Church”

“God bless Queen Anne.”

“God Save the Queen.”

“God preserve the Church of England.”

“Let us ring for Church and King.”

“God save the Church.”

“God bless the Church.”

“Come, let us ring for Church and King.”

“Fear God, honour the King.”

“God preserve our King and Kingdom, and send us Peace.”

“God preserve the Church and King.”

“Ye people all that hear me ring,
Be faithful to your God and King.”

“Prosperity to the Church and Queen.”

“Serve God, honour the King.”

The couplets and other inscriptions as to the offices and uses of bells to which I have referred are very numerous and curious, and tell of mournings and rejoicings, sacred ceremonies, and profane merry-makings. In some instances a single bell recounts, in epigrammatic style, these various offices; in others, a whole peal is used for continuous versification. One of the longest of these is the following, at Bakewell:—

1st bell. “When I begin Our merry Din,
This Band I lead from Discord Free;
And for the Fame Of human Name,
May ev’ry Leader copy Me:”

2nd bell. "Mankind, like Us, too oft are found
Possess'd of Nought but empty Sound."

3rd bell. "When of departed Hours We toll the Knell,
Instruction take & spend the future Well."

4th bell. "When Men in Hymen's Bands unite,
Our Merry Peals produce Delight;
But when Death goes his dreary Rounds,
We send forth sad and solemn Sounds."

5th bell. "Thro' Grandsires & Tripples with Pleasure men range,
'Till Death calls the Bob & brings on the Last Change."

6th bell. "When Vict'ry crowns the Publi Weal
With Glee We give the merry Peal."

7th bell. "Would Men Lik Us, join & agree
They'd live in tunefull Harmony."

8th bell. "Possess'd of deep, sonorous Tone
This Belfry King sits on his Throne;
And, when the merry Bells go round,
Adds to & mellows ev'ry Sound;
So in a just & well pois'd State,
Where all Degrees possess due Weight,
One greater Pow'r, One greater Tone
Is ceded to improve their own."

And one of the shortest and most epigrammatic is this, at Darley Dale :—

"SACRA CLANGO
GAUDIA PLANGO
FVNERA PLANGO."

A few other examples may be useful :—

"By Wolsey's gift I measure time for all,
To mirth, to grief, to church, I serve to call."

“Lord, quench this furious flame;
Arise, run, help, put out the same.”

“I to the church the living call,
And to the grave do summon all,”

is very commonly found, with slight variations :

“My roaring sounde doth warning give
That men cannot heare always lyve.”

“Our voices shall with merry sound,
Make hill and valley echo round.”

“I sweetly tolling men do call
To taste on sweets that feed the soul.”

At St. Peter’s, Nottingham, are the following five
verses :—

“Our voices shall with joyful sound,
Make hills and valleys echo round.”

“We celebrate th’ auspicious morn
On which the Son of God was born.”

“Our voices shall in concert ring
To honour both of God and King.”

“The bride and groom we greet in holy wedlock join’d,
Our sounds are emblems of hearts in love combined.”

“I toll the funeral knell,
I hail the festal day,—
The fleeting hour I tell,
I summon all to pray.”

At Aston Rowant the bells tell their own tale :
1st, “I as treble begin ;” 2nd, “I as second ring :”
3rd, “I as third will ring ;” 4th, “I as fourth in my
places ;” 5th, “I as fifth will sound ;” 6th, “Richard
Keene cast me, 1664.”

"I ring to sermon with a lusty boome,
That all may come, and none may stop at home,"

occurs at Banbury; and at Frome:—

"When I do call, come serve God all."

At Coventry is a continuous example on a peal of ten cast in 1774:—

- 1st bell. "Though I am but light and small,
I will be heard above you all."
- 2nd bell. "If you have a judicious ear,
You will own my voice both sweet and clear."
- 3rd bell. "Such wondrous power to music given,
It elevates the soul to heaven."
- 4th bell. "Whilst thus we join in cheerful sound,
May love and loyalty abound."
- 5th bell. "To honour both of God and King,
Our voices shall in concert ring."
- 6th bell. "Music is medicine to the mind."
- 7th bell. "Ye ringers all that prize
Your health and happiness,
Be sober, merry, wise,
And you'll the same possess."
- 8th bell. "Ye people all who hear me ring,
Be faithful to your God and King."
- 9th bell. "In wedlock's bands all ye who join
With hands your hearts unite;
So shall our tuneful tongues combine
To laud the nuptial rite."
- 10th bell. "I am and have been called the common bell
To ring, when fier breaks out to tell."

On another in the same town, dated 1675, is :—

“I ring at six to let men know
When too and from thair worke to goe.”

At Broadchalk the first bell says :—

“I am the first, and though but small,
I will be harde above you all.”

And the second :—

“I in this please am second bell,
Ile shurly doe my parte as well.”

At Bromham :—

“I sound to bid the sick repent
In hope of life when breath is spent.”

Other, but shorter, examples are as follows :—

“Mentes tollite vos gaudia re dimus.”

“Voco ad Templum et Sepulchram.”

“Sum vite mortis temporis atque tuba.”

“Laus et Gloria Deo.”

“Gaudio cum gaudentibus fleo cum fletibus.”

“Mors Vesta Vita.”

“Ego sum vox clamantis parate.”

“Jubilate Deo vox Harmoniae.”

“Vox Harmoniae et amoris.”

“Laus Domini nostra mobilitate viget.”

“Prosperity to those who love the bells.”

“When you me ring I'll sweetly sing.”

“To means of grace to life I call;
The news of death I bring to all.”

A few of a more curious character—some not over and above reverent—may also be given to amuse my readers:—

“A wonder great my eye I fix;
Where was but three you may see six;”

occurs at Shaftesbury, where the former peal of three bells was augmented to double that number.

“John Eyer gave twenty pound
To meek me a losty sound;”

and

“Thomas Eyer and John Winslade did contrive
To cast from four bells this peal of five,”

occur at Burtley, in Hampshire: and at Binstead, in the same county, is:—

“Doctor Nicholas gave five pound
To help cast this peal tuneable and sound;”

and

“Samuel Knight made this ring
In Binstead steeple for to ding.”

“Be it known to all that doth me see
That Newcombe of Leicester made mee,”

and

“Know all men that doth me see
That James Keene made mee,”

occur in Northamptonshire and other districts.
And at Calne—

“Robert Forman collected the moneye for castinge this bell
Of well-disposed people as I doe you tell.”

“Twas gentlemen brought me here,
And pleasant together ich five of us are,”

is at Uploman ; and at Welcombe—

“A Gooding cast us all fower
For this new-builded tower.”

“Some generous hearts do me here fix,
And now I make a peal of six,”

occurs at Stockland ; and at Stoke Rivers—

“Our sound is good, our shapes is neat,
Its Davis cast us so compleat.”

“I call the quick to church, and dead to grave.”

“In tuneful peals your joys I'll tell,
Your griefs I'll publish in a knell.”

“I'm given here to make a peal,
And sound the praise of Mary Neale,”

is at Alderton ; and at Himbleton—

“John Martin of Worcester he made wee,
Be it known to all that do wee see.”

At St. Benet's, Cambridge, we read—

“John Draper made me in 1618 as plainly doth appeare;
This bell was broke and cast againe, wiche tyme churchwardens
were
Edward Dixson for the one whoe stode close to his tacklin,
And he that was his partner then was Alexander Jacklyn.”

At Northfield, the inscriptions on the six bells run on, one after the other, as follows :—

1st bell. “We are now six, tho' once but five,”

2nd bell. “And against our casting some did strive ;”

3rd bell. "But when a day for meeting they did fix,"
4th bell. "They appeared but nine against twenty-six."
5th bell. "Samuel Palmer and Thomas Silk, churchwardens,
1730."
6th bell. "Thomas Kettle and William Jarvis did contrive
To make us six that was but five."

and thus a parish squabble was perpetuated. I will only add one more doggerel rhyme, and that a modern one, at Pilton:—

"RECAST BY JOHN TAYLOR AND SON,
WHO THE BEST PRIZE FOR CHURCH-BELLS WON
AT THE GREAT EX HI BI TI ON
IN LONDON,
1 8 5 AND 1.
FOUNDERS, LOUGHBOROUGH."

The following summary of the *signa* or *bourdons*—the "Great Toms" and "Big Bens" of our cathedrals and other places—will no doubt be useful, as giving their weights, dimensions, and history.

Great Tom of Oxford, the "Mighty Tom" of Dean Aldrich's "Bonny Christ Church Bells," is 7 ft. 1 in. in diameter at the mouth, and it weighs 7 tons 12 cwt. The original one belonged to Osney Abbey, and bore the somewhat curious inscription, "In Thomæ laude resonō Bim Bom sine fraude." The present bell was cast in 1681, by Christopher Hodson, of London.

Great Tom of Lincoln is 6 ft. 10½ in. in diameter at the mouth, and weighs 5 tons 8 cwt. It was

recast in 1834, and hung in 1835 by Messrs. Mears ; its predecessor, the celebrated "Tom," having been cast from a still older bell, with additional metal, by Henry Oldfield, of Nottingham, and William Newcombe, of Leicester, in 1610.

Big "Peter of York" measures 8 ft. 4 in. in diameter at the mouth, 7 ft. 7 in. in height, and weighs 12 tons 10 cwt. ; it was cast by Messrs. Mears, of London, in 1845.

The Great Bell of St. Paul's, London, measures 6 ft. 10 $\frac{1}{2}$ in. in diameter at the mouth, and its weight is 5 tons 4 cwt. It was cast by Richard Phelps, of London, in 1716. Except for striking the hour by the clock, this bell is only used for tolling at the death and funeral of members of the Royal Family, the Bishop of the diocese, the Dean of the cathedral, and the Lord Mayor of London, should he die during his year of office.

Great Peter of Exeter is the oldest of the existing big bells. The present one was cast by Thomas Purdie in 1676 ; it measures 6 ft. 4 in. in diameter at the mouth, and weighs 6 tons 5 cwt. Its predecessor was dated 1484.

The Great Bell at St. Dunstan's, Canterbury, weighs 3 tons 10 cwt. ; it was cast on the spot, at Canterbury, by Lester and Pack, of London, in 1762.

The Great Bell at Worcester is 6 ft. 4 $\frac{1}{2}$ in. in diameter at the mouth ; it was cast by Messrs. J. Taylor and Co., of Loughborough, in 1868.

The Victoria Bell at Leeds, though not a church

bell, but hung at the new Town Hall, may also be named. It was cast in 1858 by Messrs. Warner and Sons, of London, and weighs 4 tons 1 cwt., its diameter at the mouth being 6 ft. 2 in.

The Great Bell of Glasgow was recast in London in 1790, its predecessor having been made in 1494. It bears so excellent a descriptive inscription that I give it entire :—

“In the year of grace MCCCCCLXXXVIII Marcus Knox, a merchant, zealous for the interests of the reformed religion, caused me to be fabricated in Holland for the use of his fellow-citizens of Glasgow, and placed with solemnity in the tower of the Cathedral. My function was announced by the impression on my bosom,—

ME AUDITO VENIAS
DOCTRINAM SANCTAM ET DISCAS;

and I was taught to proclaim the hours of unheeded time. cxcv years have I sounded these awful warnings, when I was broken by the hands of inconsiderate and unskilful men.

“In the year MDCCXC I was cast into the furnace, refounded at London, and returned to my sacred vocation.

“Reader! thou shalt know a resurrection;
May it be unto eternal life.”

Big Ben of Westminster is the largest “big bell” in this kingdom. It is not a church bell, but hangs in the great clock-tower of the new Houses of Parliament. The first “Big Ben” (for ever since 1856 there have been two)—the largest bell ever attempted to be made in England—was cast at the Norton Foundry, near Stockton-on-Tees, on the 25th of August, 1856, by Messrs. J. Warner and

Sons, of London, and was safely brought and delivered at its destination at Westminster; but from being so much struck for amusement while resting for some weeks in Palace Yard, previously to being hoisted into the tower, it was cracked, and had to be broken up and recast. Its weight was 16 tons 11 cwt. 2 qrs. 20 lbs., its height 7 ft. 10 $\frac{1}{2}$ in., and its diameter at the mouth 9 ft. 5 $\frac{1}{2}$ in.; the thickness of metal at the sound bow was 9 $\frac{3}{4}$ in.; the four quarter-bells weighed about 8 tons. In 1857 the present bell was cast by Mr. George Mears, of London, but of a less size, its weight being only 13 tons 10 cwt. 3 qrs. 15 lbs. Unfortunately, it is known to be slightly cracked, and this to some extent interferes with the full tone it ought to give out. There was formerly a "Great Tom of Westminster," which was sold for St. Paul's Cathedral in 1698; but as though he determined never to give out a sound of his voice away from his own place, as he was being conveyed by Temple Bar—the boundary of Westminster and London—he rolled off the carriage and was broken. In 1708 he was recast by Philip Wightman.

All these "big bells," however, pale into sheer insignificance when compared with the "*Great Bell of Moscow*," which, although it has nothing to do with my subject of English bells, may just be stated to weigh no less than 192 tons 2 cwt. 3 qrs. 14 lbs., and to measure 21 ft. in height exclusive of the cannons, and 63 ft. in circumference; and the

“*New Bell*,” of the same city, which measures 21 ft. in height, and is 18 ft. in diameter.

The *Sacring Bell* was rung at the elevation of the host inside the church in England, by the constitutions of Cantelupe in 1240, as a warning of devotion; it was rung, first, by the serving boy or parish clerk while the elements were being blest, and at its sound the people knelt down whilst the host was elevated; the second time was during the crossing of the chalice with the host.

The *Sanctus* or *Saunce Bell* generally, but not always, hung in a small bell-cote at the apex of the gable, over the chancel arch outside the church. It was rung at the singing of the *Ter Sanctus* in the high mass, as a warning to those outside—to all whose ears it would reach—that the canon of the mass was about to commence, in order that the absent from daily mass, in house or field, might bow their knees at the sound; and it is said that his people would let their plough rest when George Herbert’s saint’s bell rang for prayers, that they might also offer their devotions to God, and would then return to the plough. The bell still in some places rung after matins is a relic of this sanctus bell.

Hand-bells, of which the sacring bell was one, were used for various offices of the Church besides in its ceremonies. Among these were visitation of the sick, for processional purposes, and at funerals. In the latter case acolytes walked beside the hearse

or body with a bell in each or in one hand, ringing as they went ; and sometimes, as formerly at Oxford and other places, a bell was carried and rung before the corpse on its way to church.

The *Passing Bell*, even in mediæval times peculiar to England, is tolled at the death of any person, the sex of the deceased being denoted by a certain number of strokes preceding the regular tolling. For instance, at Woodborough, three tolls thrice repeated for a man, and two tolls thrice repeated for a woman. At Winster, for a man three tolls are struck on the treble bell, then three on the second, then three on the third, then three on the fourth, and lastly three on the tenor, with a short pause between each ; then the tolling commences on the tenor bell. For a woman the same form is observed, but only two strokes are given on each bell. In some localities the age of the deceased is also tolled. The original use of the "Passing bell," or "Soul-bell," as it is sometimes called, was to keep away any evil spirits that might be hovering about, from taking possession of the departed soul, and so to "pass" it upwards, safe from abduction by the devil and his attendant imps, to the footstool of its Maker. It also served the purpose of reminding its hearers that a soul was "passing" away, and so called for their prayers in its behalf.

The *Funeral Bell* is generally rung for an hour before the appointed time of burial. It is usually the tenor bell which is tolled ; and in some places,

immediately at the close of the service at the grave, the treble is rapidly rung until the mourners have left the churchyard.

The *Sermon Bell*, or “priest’s bell,” is the treble, at the end of the peal calling to morning service, rapidly rung from the moment the clergyman emerges from the vestry until he is seated in the reading-desk.

The *Pudding Bell*, as popularly so called, is the treble rapidly tolled at the close of morning service ; so called because it is said to be intended to give notice to the housewives at home that they may put the dinners on the table by the time the congregation reach their homes !

The *Curfew*, which still “tolls the knell of parting day” in many of our country villages—long may the practice be continued!—is one of the most venerable of the bell institutions of our country. The Curfew bell (*couver feu*) was introduced, or at all events enforced, in England by William the Conqueror. It was introduced at Oxford by Alfred the Great. It was rung at eight o’clock each night, and at its sound all lights were expected to be extinguished in every house ; hence it was called *Ignitegium*. It was a wise law at the time ; for, when the houses were mostly built of wood and light materials, it was a safeguard against conflagrations. The law was abolished by Henry I. in 1100, but the custom of tolling is still continued in many places.

Peal Ringing is peculiar to our own country, and

its use in the Middle Ages earned for our land the name of the "ringing island." *Change Ringing* was not invented until quite late in the sixteenth or early in the seventeenth century. The first recorded society of ringers, the "Company of the Schollers of Chepeside," was enrolled in 1603, and was quickly followed by others.

Carillons, or chimes, where tunes are, at stated hours, played on a number of bells, are of old origin, and have of late years been added to many churches. The best, whether ancient or modern, arrangers and makers of carillons are Messrs. Gillet and Bland, of Croydon.

CHAPTER XI.

AMONG GLASS, STAINED GLASS, ENCAUSTIC TILES,
TAPESTRY, ETC.

STAINED glass seems to date back in our own country to about the twelfth century, but that glass itself was made here some centuries before that time, there can scarcely be a doubt. It is well known that glass, both opaque and transparent, coloured and colourless, was made by the Egyptians between three and four thousand years ago ; it was known to the Assyrians, the Greeks, and the Etruscans ; and made, to a high degree of perfection, by the Romans. In our own country there is a possibility that the art was known at a somewhat late period—indeed, after its subjugation by the armies of Rome—to the Celtic population ; beads of that material being found with undoubted ancient British remains. These however may, with almost a degree of certainty, be considered of Roman manufacture. Imperforate beads of this kind, of large size, have been found at Adderbury and other

places. One is shown in Fig. 248. What the use of these large imperforate beads was, if beads they can in consequence be called, remains a mystery. The one engraved is of a dark green glass mottled or speckled with white; the engraving is its actual size. Roman beads of glass are not uncommon. Of these I have spoken in another chapter.

Traces of a Roman glass manufactory have been found near Brighton, on the coast between Kemp-

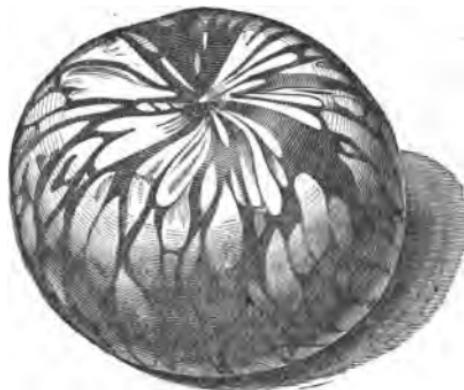


Fig. 248.

town and Rottingdean. The discovery was made in 1848 by Dr. Guest, who found several lumps of the crude glass of various colours—amethyst, amber, emerald green, and deep morone. Some of these lumps, which had long been found on the spot, were “double the size of a man’s fist,” and a lapidary in Brighton had for years been in the habit of cutting them up and polishing small portions for

setting in brooches, etc. Evidently these lumps are part of the *massæ* made in the manner described by Pliny, and ready to be sent to the different glass-



Fig. 249.



Fig. 250.



Fig. 251.

workers in other parts of the kingdom. Glass vessels of the Romano-British period are frequently met with, but usually, except in the case of the



Fig. 252.

sepulchral vessels, in a fragmentary state. The glass sepulchral vessels are usually bottle-shaped,

sometimes round, but more commonly square, with necks, and one or two handles (Fig. 251). They contained the calcined bones of the dead. Through these "bottles" having been protected when buried, in the manner shown in Fig. 252, where the whole interment is shown, they are occasionally found in a perfect state. Cups or bowls, drinking-glasses, small bottles for holding unguents or aromatics, and other vessels in glass of this period, are also found.

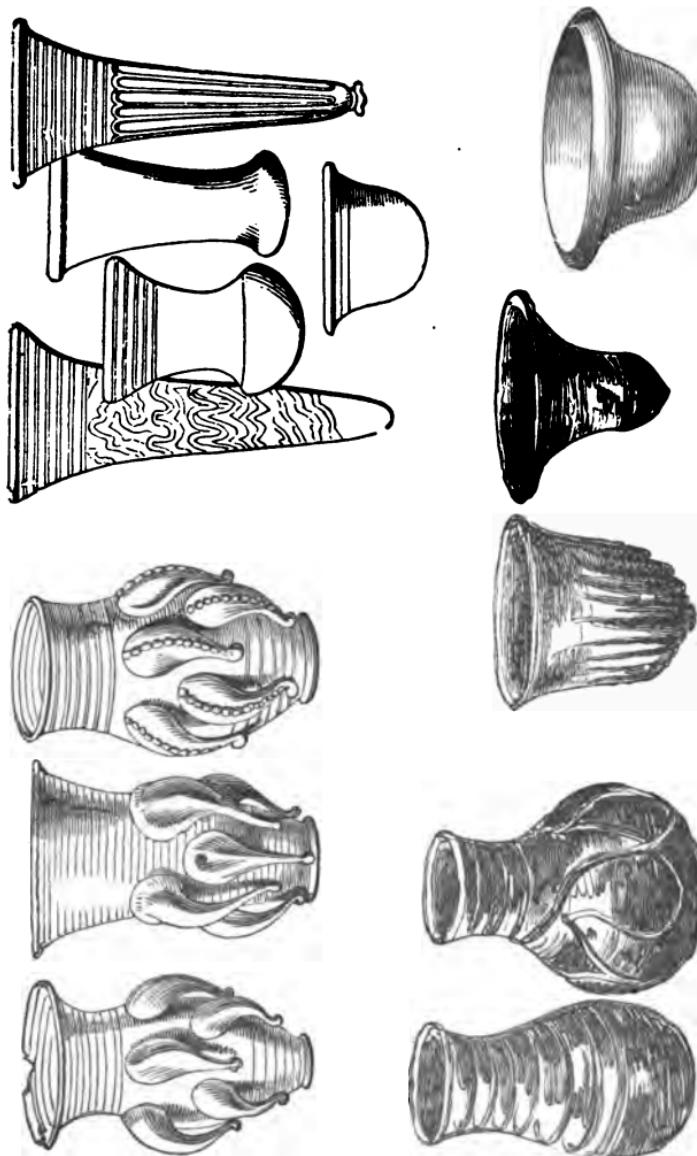


Fig. 253.

Some of the bowls are decorated with figures or other ornaments in relief. Window glass of this period is also found; notably are some examples which

I discovered in a

Roman villa excavated by myself in Oxfordshire. Inscriptions sometimes occur on these cups, such as *BIBE FELICITER* ("drink with good luck!"), *BIBE ET VIVAS* ("drink that you may live!"), *VIVAS BIBERE* ("may you live to drink!"). Somewhat similar inscriptions now and then occur on pottery —*VIVAS* ("live!"), *AVE* ("hail!"), *BIBE* ("drink!"), *IMPLE* ("fill!"), *EX HOC AMICI BIBVNT* ("out of this cup, friends, drink!"), a charming motto for a "loving cup"—and so on; and the same feeling was carried on in the Anglo-Saxon *WÆS HÆL* ("be thou in health!"), from which our wassail is derived. From drinking from "cups," whether of glass,



Figs. 254 to 266. Anglo-Saxon glass vessels.

earthenware, or wood, the common expression of being "in his cups," applied to a tipsy person, is derived.

Among the Anglo-Saxons the manufacture of glass was continued ; the glass itself being usually thinner than that of the preceding period. They are principally drinking-cups of different forms, and decanter-shaped vessels, which are closely analogous in shape to our common glass toilet water-bottles. The Anglo-Saxons are supposed by most writers to have derived their knowledge of the art of glass-making from their Roman predecessors, but of this more proof is wanting. So very different in most of its characteristics is the Saxon glass from the Roman, that it is difficult to believe that the one is but an imitation of the other. The forms are in many instances similar to those found in Frankish graves, and it is certain that the art was practised simultaneously in the Saxon period in Germany, France, and our own country. The drinking-cups of glass were formed either rounded or pointed at the bottom, so that they could not stand, and thus, when filled, the liquor was obliged to be drank off before the cup could be set down inverted on the table. From this circumstance our modern name for drinking-glasses—*tumblers*—takes its origin, although not now in the original sense ; our present "tumblers" being particularly safe and firm when set on the table, and not necessitating the whole of the contents being quaffed at once (Figs. 264 to 266).

These examples, it will be seen, must have been held in the open palms of the hand, as is so frequently represented in illuminations, and must have been emptied of their contents before being returned, inverted, to the board; as must have been the long ale-glasses shown in Figs. 257 to 261, the mode of holding which is also shown in Fig. 267, from an illuminated MS. of the time. The shape of these was probably taken from the drinking horns then in use. In Beowulf they are thus spoken of:—

Pegen nytte beheold,
se pe handa bær
hroden ealo-wæge.

“ The Thane observed his office,
he that in his hand bare
the twisted ale-cup.”

The manufacture of glass for domestic purposes seems to have declined during the early mediæval period, and even for windows of dwelling-houses, through its costliness, paper or oiled linen was used. Still there can be no doubt the manufacture of glass was never, as has been affirmed, wholly discontinued in this kingdom. Chaucer speaks of glass being made:—

“ But nathless some saiden that it was
Wonder to maken of ferne ashen, glasse,
And yet is glass nouȝt but ashen of ferne;
But for they han yknown it so ferne (long ago)
Therefor ceaseth hir jangling and hir wonder.”



Fig. 267.

A contract, dated 1439, between the Countess of Warwick and John Pruddhe, of Westminster, glazier, binds him, in the work he is engaged in, to "use no glass of England, but glass from beyond seas." In 1557 there were glass-works in Sussex, as we learn from Charnock's "Breviary of Philosophy":—

"As for glass-makers, they be scant in this land,
Yet one there is, as I do understand;
And in Sussex is now his habitation,
At Chiddington he works of his occupation."

In 1557 window glass was made in Crutched Friars, London. In 1567 Jean Quarre, or Carre, of Antwerp, and others brought workmen from Lorraine, and established themselves in Crutched Friars, for the manufacture of table glass. Of this, Stow says: "The Friars Hall was converted into a glass House for making Drinking vessels, which was destroyed by fire in 1575." In 1635 Sir Robert Maunsell took out a patent for glass-making.

About 1650 "Mr. Ravenscroft first made the flint glasses;" and about the same time "the Duke of Buckingham first encouraged glass plate," "since that (1696) we have mended our window glass, and outdo all abroad." In 1696 English window glass is declared to be "the best in the world," and "flint mum-glasses" to be worthy of improvement. In that year (1696) there were in England the following glass-houses:—

An account of all the glass-houses in England and Wales.	The several counties they are in.	The No. of houses	And the sorts of glass each house makes.
In and about London and Southwark ...	...	9	For bottles
		2	Looking-glass plates
		4	Crown glass and plates
		9	Flint, green, and ordinary
		1	Flint, green, and ordinary
Woolwich ...	Kent ...	1	Crown glass and plates
Isle of Wight ...	Hampshire ...	1	Flint, green, and ordinary
Topsham, near Exon...	Devonshire ...	1	Bottles
Oddam, near Bath	Somersetsh. ...	1	Bottles
Chellwood		2	Bottles and window glass
In and about Bristol ...	...	5	Bottles
Gloucester	Glostersh. ...	1	Bottles and window glass
Newnham		3	Flint, green, and ordinary
Swansey, in Wales ...	Glamorgan ...	2	Bottles
Oaken-Yate ...	Shropshire ...	1	Bottles
Worcester ...	Worcestersh. ...	1	Bottles and window glass
Coventry ...	Warwicksh. ...	1	Flint, green, and ordinary
Stowerbridge ...	Worcestersh. ...	5	Bottles
Near Liverpool		5	Flint, green, and ordinary
Warrington	Lancashire ...	1	Bottles
Nottingham		1	Flint, green, and ordinary
Ansorth	Nottingham ...	1	Window glass
Custom-more, near Ansorth		1	Bottles
Near Silkstone	Yorkshire ...	1	Flint, green, and ordinary
Near Ferrybridge		1	Bottles, flint, green, and ordinary
King's Lynn	Norfolk ...	1	Bottles
Yarmouth		1	Flint, green, and ordinary
New-Castle-upon-Tine	Northumberland	6	Bottles
		4	Window glass
		1	Bottles
		90	Flint, green, and ordinary

Stained, or rather painted, glass is either manufactured what is technically "white" (*i.e.* simply colourless, not white at all) or "coloured." The "white" (falsely so called, because it is colourless), after being properly prepared in the melting-pot of the glass-house, is formed into sheets, and after-

wards annealed. "Coloured" glass is of two kinds ; it is either "pot-metal glass," *i.e.* coloured in its entire substance, or "coated glass," *i.e.* one side of the sheet of the pot-metal glass is covered or coated with colour. There are three systems of glass-painting. These are—1. The "mosaic" method, where the design is formed of pieces of various coloured glasses, cut to the required shapes, and joined together by the leads, so as to form the outline ; the features and subordinate parts being outlined with brown. 2. The "enamel" method, in which coloured glass is not used at all ; the picture being entirely painted in all its brilliancy of colour on the "white" glass, with enamel colours and stains. And, 3. The "mosaic enamel" method, which is a combination of the other two ; "white" and "coloured" glass, as well as every variety of enamel colour and stain, being employed in it. The styles of glass-painting have been arranged by Mr. Winston almost under the same general divisions as those of architecture, thus :—

The *Early English*, which extends from the date of the earliest specimens extant to the year 1280.

The *Decorated*, which prevailed from 1280 to 1380.

The *Perpendicular*, from 1380 to 1530.

The *Cinque Cento*, from 1500 to 1550 ; and

The *Intermediate*, comprehending the period that has elapsed from the end of the *Cinque Cento* style down to the present day.

At first the design consisted of historical medallions arranged with mosaic glass, which embraced panels with geometrical patterns and borders of scroll-work and leaves. The folds of the draperies and details are marked out in bistre colour. The outlines of the designs are formed by leading. In the fourteenth century the pieces of glass are larger, the slips of lead occur at wider intervals, whilst single figures, placed under canopies, and not on a mosaic ground, but a plain field of red or blue, occupy an entire window. Lights and shadows are introduced in the draperies, and the flesh tints are no longer violet, but of a reddish grey. In the fifteenth, and first part of the sixteenth century, the decorations were increased; hangings are placed behind figures, borders become rare, and when they occur represent a scanty leafage. Grisaille, or silver grey, is freely used. In the second half of this century buildings and landscapes are introduced.

At Canterbury, on glass of the twelfth century (for which Gondomar, the Spanish ambassador, offered its weight in gold), the design consists of panels of scriptural subjects on a ground of ruby or deep blue; rich mosaic patterns fill the interspaces, and a broad bunch of foliage or scroll-work completes the plan. In the thirteenth century the panels are usually circular, or quatrefoiled, and the colours used are ruby, blue, green, palish yellow, and lilac sparingly. In the Decorated period the interspaces have flowing foliage, quarries are freely

used, and single figures, usually canopied, are frequently represented: green and lilac are dying out of fashion. In the Perpendicular period yellow became more prominent; the figures increased to a large size, with elaborate canopies, and heraldic cognizances and inscriptions, freely used, mark the style.* Beautiful examples of stained glass of every period may be met with in one or other of our cathedrals, and in most of our old churches. In modern times stained glass has again become pretty general, and many of the windows executed by our own English artists are of good and effective design and clever execution.

The use of **ORNAMENTED PAVING TILES** in England probably originated in the middle of the twelfth century—at all events, no examples which can be ascribed to an earlier period have as yet been discovered—and continued until the sixteenth century, when their beauty became much deteriorated, and their use gradually decayed. Some of the earliest known examples are from Castle Acre; these appear to be of the latter part of the twelfth, or of the beginning of the thirteenth century, as is a pavement in the Chapter House, Westminster, in which many of the tiles bear figures of king, queen, priests, and knights, with armorial bearings, and Early English foliage. To this century also belongs the pavement at Worcester, which I discovered and cleared in 1848; and to the same

* Walcott.

period are also to be ascribed tiles from Repton, Bakewell, Derby, Exeter, Malvern, Bredon, Great Bedwyn, Warblington, St. Cross, Tintern, Wirksworth, Tewkesbury, and many other places.

In the two following centuries, the decorations were of a much more varied and elaborate character; oak, ivy, vine, and other leaves were beautifully and closely copied from nature, and skilfully displayed in their disposition—indeed, the foliage of this period exhibited generally much natural freedom, and was elegantly and gracefully thrown, so as to form elaborate and striking patterns. Excellent examples of this period occur at Worcester, Wells, and Winchester cathedrals, at Shrewsbury, Evesham, St. Albans, etc. At Malvern the date 1453 occurs in the series, and others of the same date are to be seen at Stone and Malmesbury.

In the sixteenth century, the use of encaustic tiles appears to have been almost superseded by the introduction of Flanders or Gally tiles; these are of foreign fabrication, and have their patterns depicted in superficial colours. Some of these occur at Holt. In Devonshire and other western counties, tiles of a late period are occasionally met with, whose devices are raised above the general surface in high relief. Examples may be seen at Tawstock, at Westleigh, and other places. Of the process observed in the manufacture of encaustic tiles, it is only necessary to remark, that the red clay being prepared of the proper consistency, and placed in

the hollow square mould, a stamp of wood, bearing the device in relief, was pressed upon its surface, and the pattern thus became indented into the clay. A thin layer of white clay was next laid into the hollow thus formed, and the tile was then baked—a yellow glaze being spread over the whole surface and burnt in. That this was the mode of manufacture may easily be seen by examining old pavements where the glaze has been, by long use, worn away from the surface, and has left the white clay in the interstices, not unfrequently in a loose state. Instances occur of tiles being left simply impressed with the pattern without filling in, and then glazed over. One remarkably elegant example of this kind I recollect finding at Shrewsbury, where the vine leaf and grape were exquisitely indented. Kilns for the manufacture of tiles have been found at St. Mary Witton, Droitwich ; at Malvern ; at Great Bedwyn, Wiltshire ; at Repton and at Dale Abbey, in Derbyshire ; in London, and in other places.

The devices impressed upon encaustic tiles consist principally of foliage variously thrown, so as to form crosses, quatrefoils, scrolls, and other varieties of ornamentation ; heraldic bearings ; crosses ; sacred symbols ; figures of mounted knights, and of kings, queens, and ecclesiastics ; letters and alphabets ; grotesque figures ; beasts and birds. In many cases the pattern is complete in itself on the single tile, but sets of four, nine, sixteen, and other numbers,

with a continuous pattern extending over their whole surface, are of not uncommon occurrence. Armorial bearings, badges, and cognizances are perhaps amongst the most useful and valuable species of decoration to the archæologist which tile paving presents; the arms frequently exhibiting the bearings of the lords of the manor, or of the chase, as well as those of the monarch, and of founders and benefactors of the church. They are therefore peculiarly valuable in the assistance which they give in tracing the descent of property, and in determining the sources of church benefaction. At Haccombe, in Devonshire, besides the royal arms and other bearings, is the shield of the founder, Haccombe; at Neath are the arms of Clare, De Spencer, De Granavilla, Montacute, Turberville, and other patrons and benefactors of the abbey; at Bakewell are the arms of Foljambe and Breton; and at Malvern are the arms of Clare and De Spencer, Earls of Gloucester; Newburgh and Beauchamp, Earls of Warwick (the successive lords of the chase and manor); and the royal arms, the lordship having reverted to the crown by marriage. At Worcester are the royal shield and the arms of the Earl of Cornwall, and of Beauchamp, Le Boteler, Le Seot, Digby, Clare, Warren, Carpenter, etc.; at Wenlock, Salop, are Mortimer and others; at Gloucester, those of Abbot Sebroke; at Haughmond, Corbett; in Christ Church, Oxford, the royal arms, and those of the see of Exeter; at Shrewsbury are Hastings,

Mortimer, Beauchamp, and others ; at Warblington, Clare and Grey ; at Hereford, Mortimer, Berkeley, Edward the Confessor, etc. ; and at Bredon, in Worcestershire, is an extensive series, comprising upwards of thirty bearings of illustrious families of the thirteenth century. Amongst them are those of Edward I., Queen Eleanor (Castile and Leon), Edward of Carnarvon, France (semée-de-lis), Bohun, Warren, Clare, Cantilupe, Maltravers, Mortimer of Wigmore, Mortimer of Chirk, Wake, Hastings, Beauchamp, Berkeley, Grandison, Latimer, De Vere, De Geneville, De Spencer, etc. These will be sufficient instances to show the nature of armorial tiles, and their value to the topographer.

In some instances, four or more tiles are employed for the production of one complete shield, as at Westminster, Worcester, Gloucester, etc., and in others the shields are introduced with good effect, as part of the foliated or geometrical design of the pavement. At Worcester, the well-known bearings of Richard, King of the Romans—the lion rampant within a bordure bezanty, for the Earldom of Cornwall, and the spread eagle—are each formed of four tiles, the shields being placed diagonally. These and several others I had the gratification of discovering in 1848. At the same place are the arms of Beauchamp and Bishop Carpenter, so arranged as to form, when quadrupled, some most interesting devices. At Gloucester also are excellent examples of shields formed of four and more tiles. At Malvern

is a remarkable example of impaling, in which the tiles are so arranged as to present, when placed together, both the simple family bearing and the impaled one after marriage. Besides armorial bearings, the badges and cognizances of families, as well as rebuses and personal devices, are frequently found on tiles. For instance, at Malvern is a winch (or capstan), a comb, and a mitre and pastoral staff, for Tydeman de Winchcombe; while at Tutbury is the nave of a wheel, which is one of the badges of the Stafford family.

Sacred symbols are of very frequent occurrence, and of great variety; of these the fish, the pelican, the cross, the lily, the Agnus Dei, the cross keys, the various emblems of the Passion, the interlaced triangles, monograms of I.H.C. and M., are perhaps the most general. There are also others which bear inscriptions of a pious character, and others again bearing a kind of charm. At Malvern is a tile with the words, "*Mentem . Sanctam . Spontaneum . Honorem . Deo . et . Patrie . Liberacionem*," and at the same place, with the names of the Evangelists, and the date 1456, is the quotation from Job xix. 21, "*Miserimini mei, miserimini mei, saltem vos amici mei, quia manus Domini telegit me.*"

Mounted knights, priests, ladies, grotesque figures, etc., occur at Romsey, St. Cross, Margam, Tintern, Shrewsbury, Burton, Kegworth, Thurgarton, Reading, Oxford, and many other places, and many of them have been of considerable use, by the exam-

ples of costume which they exhibit, in assisting to establish the date of the foundation of the building. Letters, too, are not uncommon on this species of fictile decoration, and they occur sometimes singly, as at Beaulieu, where nearly the whole alphabet is traceable on tiles of small dimensions, so that they may be placed together to form inscriptions. In other instances complete alphabets occur, as at Repton and other places in Derbyshire. Monuments composed entirely of tiles are occasionally met with, but are of rare occurrence. They are occasionally found, as at Malvern, for wall decoration.

The usual colours are, of course, red and yellow, the ground being of the former, and the pattern of the latter colour. Instances, however, sometimes occur in which other colours, black and green for instance, are used. Enamelled tiles are also sometimes met with, in which, as in the Mayor's Chapel, Bristol, and at Frithelstoke, the patterns are depicted in a variety of colours. The usual size of tiles is four and a half or five inches square, but they are found of various dimensions. They are, except in very rare instances, square.

TAPESTRY was much in use among the Anglo-Saxons, who called it *wah-hrægel* or *wah-rift*, "wall-clothing." These were, undoubtedly, frequently only plain cloths, not tapestry; but quite as frequently they were richly ornamented, and worked with historical subjects. "So early as the seventh century," says Wright, "Aldhelm speaks of the hangings

or curtains being dyed with purple and other colours, and ornamented with images ;” and he adds that “ if finished of one colour uniform they would not seem beautiful to the eye.” Among the Saxon wills printed by Hickes, we find several bequests of *heall wah-riftas*, or wall tapestries for the hall ; and it appears that in some cases tapestries of a richer and more precious character than those in common use were reserved to be hung up on extraordinary festivals. There were hooks or pegs on the wall, upon which various objects were hung for convenience. In an anecdote told in the contemporary life of Dunstan, he is made to hang his harp against the wall of the room. Arms and armour, more especially, were hung against the wall of the hall. The author of the “ Life of Hereward ” describes the Saxon insurgents, who had taken possession of Ely, as suspending their arms in this manner ; and in one of the riddles in the “ Exeter Book,” a war-vest is introduced speaking of itself thus :—

hwilum hongige,
hyrstum frœtwed,
wlitig on wage,
pear weras drinceþ,
freolic fyrd-sceorp

“Something I hang,
with ornaments adorned,
splendid on the wall,
where men drink,
a goodly war-vest.”

The most celebrated, if not the most ancient, piece of needlework tapestry—*real* tapestry, being entirely wrought by the needle, as was usual in the earliest period of its history—which time has spared

us is the "Bayeux tapestry," and called at Bayeux the "Toilet of Queen Matilda," or of "Duc Guillaume." It is a representation of the history of the stirring events in the life of William, Duke of Normandy, from the arrival of Harold's ambassadors to inform him of his detention by Guy, Count of Pontthieu, to the close of the battle of Hastings, where he earned his title of William the Conqueror. This tapestry is popularly said to be the work of Matilda, his queen, and the ladies of her court, and to have been by her presented, through her brother-in-law, Odo, Bishop of Bayeux, and uterine brother of the Conqueror, to that cathedral. This popular belief has been attempted to be demolished, but without detracting one day from its antiquity. It is undoubtedly a work of the period whose events it commemorates. The Bayeux tapestry was removed from the cathedral in 1803, and is preserved on a roller in the town library of that place. It is a continuous piece of needlework, 214 feet in length, and between nineteen and twenty inches in breadth. One end—the latter end—is decayed away; and, probably, as the design breaks off abruptly, some portion has been lost. It is worked in coloured wools, or worsted.

Tapestry continued (as did needlework embroidery) to be worked in England during the Middle Ages, and was used not only for covering the walls of rooms, but for hangings in cathedrals, abbeys, and churches. "In the twelfth and thirteenth centuries,"

says Mr. Planché, “the art progressed rapidly, in consequence of the increasing demand for a material which clothed the cold, comfortless stone walls of the castles and mansions of the nobility, and not only gave warmth and cheerfulness to the chamber, but frequently illustrated the actions of its owner or his chivalrous ancestors. The tapestries of Flanders were in great repute as early as the twelfth century; but although England was celebrated long previously for her wonderful needle-work—so much so, indeed, that all peculiarly fine embroidery obtained the name of ‘English work’ (*opus Anglicum*)—it does not appear that any successful attempts were made to introduce the weaving of hangings in this country, whilst manufactories were successively established at Brussels, Antwerp, Oudenarde, Lisle, Tournay, Bruges, Arras, Florence, and Venice. Of all these, that of Arras appears to have shortly become the most famous, and, indeed, almost substituted its own name for that of its production. *Arras* became in England synonymous with tapestry, and *Arrazzi* in Italy signified the most perfect description of this manufacture.”

In the sixteenth century Francis I. established the manufactory of Fontainebleau, where gold and silver thread was woven into the work after the Florentine and Venetian manner. Henry II., besides keeping up this manufactory, established another in the Hôpital de la Trinité; and Henry IV. esta-

blished another in the Hôtel de la Maque, where gold and silver threads were woven as at Fontainebleau. The famous manufactory of the Gobelins was established by Louis XIV., who purchased the premises of some clever dyers of that name (Gobelins) about 1666 ; and the productions of the Hôtel Royal des Gobelins are said to have attained the highest degree of perfection in the time of Louis's great minister, Colbert, and his successor, Louvois. "It was probably the reputation of the French, Flemish, and Italian tapestries of the sixteenth century that induced an English gentleman, named Sheldon, later in the reign of Henry VIII., to introduce tapestry weaving on a large scale into England. The Countess of Wilton, in her 'Art of Needlework,' states that Sheldon appropriated his manor house at Burcheston, in Warwickshire, to this purpose ; the works being then under the direction of an artist named Robert Hicks, whom he mentions in his will, dated 1570, as 'the only author and beginner of tapestry and arras within this realm.' To James I. we are indebted for the establishment of the better known manufactory at Mortlake, under the management of Sir Francis Crane, about 1619. Two thousand pounds were given by the king towards the foundation of it ; and an artist named Klein, born at Rostock, in the Duchy of Mecklenburg, was engaged to supply it with original designs. Charles I. continued the royal patronage, allowing Sir Francis Crane two

thousand pounds per annum for ten years in lieu of one thousand originally granted, 'toward the furtherance, upholding, and maintenance of the work of tapestries laterlie brought into this our kingdom by the said Sir Francis Crane, and now by him and his workmen practised and put in use at Mortlake in our county of Surrey.' Six thousand pounds was also granted as due to the establishment for three suits of gold tapestries. The king settled upon Klein an annuity of one hundred pounds in addition, which he enjoyed until the commencement of the civil war. The premises at Mortlake having been sold to the king by Sir Richard Crane, on the death of his brother Francis, were seized by the Parliamentarians as royal property; and though, after the Restoration, Charles II. endeavoured to revive the manufacture, and employed Verrio to make designs for it, the attempt was not successful. Foreign tapestry appears still to have maintained its superiority, or at least its vogue, as we find an Act of Parliament passed in 1663 to encourage the tapestry manufactures of England, and to restrain the great importance of foreign linen and tapestry."

Tapestry was usually suspended on hooks in the wall. The hooks for them remain along the nave walls of Winchester, and examples are preserved at Beauvais; St. Peter's Mancroft, Norwich, 1573; Denbigh; a dorsal (1530), at Chester, of French manufacture, till lately used as a dorsal; at Merton College, Oxford; and Westminster, of the time of James II.

Polydore Vergil, in the sixteenth century, gave hangings embroidered with his arms for the stalls at Wells. Those given by Prior Goldstone to Canterbury are now at Aix. The screen hangings used for shelter and ornament at Exeter represent the story of the Duke of Burgundy, and were blazoned with the arms of the Courtenays. At Peterborough, in the transept, tapestry with the deliverance of St. Peter out of prison, of the time of Henry VIII., is the solitary relic of sixteen pieces used on festivals, and suspended till 1643 from the choir triforium. At Manchester, there is tapestry (c. 1661). From Christmas to Purification, from Easter Eve to the octave of Trinity Sunday, from the Assumption to Michaelmas, and on St. Chad's Day, Lichfield was adorned with silken hangings and cloths. At York, Archbishop Lamp-lugh gave tapestries for hanging the reredos. At Westminster, tapestries were hung round the easternmost bays at the coronation of Charles I., and remained till the last century. Until 1765, the bays between the pillars were hung with tapestry at Carlisle. The tapestry hangings remained at Norwich till 1740.—(*Walcott.*)

Of domestic tapestry examples remain in most of the old mansions of the kingdom.

CHAPTER XII.

AMONG PERSONAL ORNAMENTS.

ADORNMENT for the body, even when dress was wholly unknown or only partly used, has ever been a characteristic of the human race. At the present hour the Andamanese women, though entirely devoid of clothing, wear a chaplet or string of bones round the head; while other nude races will hang some rude ornament to the ear or nose, or round the neck, arm, or leg. As it is with them now, so it was with the earliest inhabitants of our island, and when dress became known, rude though it was, ornaments of one kind or other became more frequent. Necklaces, pendants, armlets, and one thing or other were worn by our Celtic foremothers at a very early period, and to these, and some of the adornments belonging to a later period, a half-hour may pleasantly be devoted.

Necklaces formed of jet (or cannel coal) and bone, or jet only, or amber, were worn by the ancient Britons, and are now and then found in the barrows

of that period. The beads of which they are composed vary considerably in form and in size. Fig. 268 is a necklace from Middleton Moor; the beads



Fig. 268.

of which it is composed lay about the neck of the skeleton, and were care-fully collected to-gether, and strung in what there can be but little doubt was their original arrangement. The various pieces of this elaborate neck-lace amount to no thin laminae, 54 in number; 348 being cylindrical form, and the remaining 18 conical studs and perforated plates, some of which are ornamented with punctures. The cist containing the skeleton of the female who during life had been adorned with this elaborately beautiful necklace is shown in Fig. 269. Another good example consisted of 80 pieces, 72 of

which were long jet beads, two were cylindrical, also of jet, and the remaining six were perforated plates of bones, ornamented with punctures. A necklace of different character, from Fimber,* consisted of 171 laminæ or small discs of jet, and a triangular pendant, or centre, of the same material.

The long beads were sometimes cut so as to give the effect of several small round ones. A necklace



Fig. 269.

of similar character in design as Fig. 268, from Assynt, is entirely of jet, and has the perforated plates ornamented with minute spots of gold. Another of like general design from Pen-y-Bone consisted of forty-eight long beads, two cylindrical ones, and seven perforated plates, all of jet or cannel coal. Many examples of these interesting articles are described in Evans's "Ancient Stone Implements," and in my own "Grave-Mounds and their Contents." On a fine fragment of Roman sculpture preserved in Lincoln Cathedral, and which "is, no doubt, intended for the portrait of a lady who lived in the ancient Roman town, and

* See the "Reliquary," vol. ix. p. 65, for an account of this.

is interesting as an illustration of the costume of a British female of her age," a necklace of this identical form is seen worn. Necklaces formed of shells were also worn.

Necklaces were much worn during Romano-British times, and were formed of beads of glass more or less ornamented, of clay, of stones, and other materials. Some examples of these beads are given in Figs. 249 and 250, as also a string of beads said to have been found with undoubted Roman remains.

Among the Anglo-Saxons necklaces were abundantly worn. The greater part of the beads which are found are composed of glass, transparent and opaque; variegated clays of different colours; and of amber. Less frequently, beads of amethystine quartz, of crystal, and of other rare natural substances are found. Sometimes the beads are formed singly, and at other times they are in couplets or triplets. Beads of metal—gold and silver—and of stones set in the same precious metals, have also been exhumed. Sometimes amethysts and other stones, set in gold and pendent from a gold band, have been found; and not unfrequently a cross of filigree work, a circular bulla, or a Roman or Merovingian gold coin, was suspended to the necklace. Beads mounted on rings, or, more properly speaking, threaded on rings, are of not unfrequent occurrence, and appear, in many instances, to have been intended for the ears. Beads from the Kentish barrows are perhaps the most extensive in number,

as well as the most varied in form, material, and ornamentation, of any. The next illustration (Fig. 270) shows a series of twenty-five beads, which formed the necklace of an Anglo-Saxon lady, from a grave at Wyaston, in Derbyshire. In this barrow, which was thirty-three feet in diameter and four feet high in the centre, were discovered the remains of a human skeleton, consisting merely



Fig. 270.

of the enamel crowns of the teeth, which, though themselves but scanty mementoes of female loveliness, were accompanied by several articles indicating that the deceased was not unaccustomed to add the ornaments of dress to the charms of nature. These comprise this handsome necklace of twenty-five beads, a silver finger-ring, silver earrings, and a circular brooch or fibula. Five of the beads are

of amber, carefully rounded into a globular shape, the largest an inch in diameter; the remaining twenty are mostly small, and made of porcelain or opaque glass, very prettily variegated with blue, yellow, or red, on a white or red ground. The remains of the teeth show the person to have been rather youthful, and afford a good instance of the extreme decay of the skeleton usual in Saxon deposits in this part of the country, whilst those which we have reason to reckon centuries more ancient are, as a rule, well preserved.

In Norman and mediæval times, and so down to our own day, necklaces continued to be worn. One of the earliest examples on monumental effigies is a simple double chain of gold (1450). Another of the same century (1485) is that on the effigy of Isabella Cheyne; it is very elaborate, and is formed of pendent jewels. Lady Say (1473) wears also a very rich and elaborately jewelled necklace. During the reigns of Henry VII. and VIII., it frequently assumed the form of a jewelled collar with a central pendant. Anne Boleyn is represented wearing a simple string of beads, with a large one as a pendant in the centre; and Queen Catherine Parr has similar ones hanging at regular intervals all round the neck. In the reign of Elizabeth it was not unusual to wear several necklaces, and to allow them to hang down to the waist, where they were looped to the girdle. These were frequently as extravagant in their richness, profusion, and dis-

play, as the rest of the costume of that extraordinary period. The great display ceased with the Protectorate, and since then necklaces, like hoops and ruffs, have been more modest in their dimensions.

Earrings were much worn by the Anglo-Saxon ladies, and also by their Roman predecessors, and in mediaeval times were also worn by gentlemen. Saxon earrings were of silver and gold, and sometimes set with pendants of precious stones. Occasionally, as in Fig. 272, a bead of glass was threaded on the ring to serve as a pendant. Sometimes the earring was simply a piece of gold or silver wire (usually the latter) bent into the form of a plain ring, or twisted in a spiral form; sometimes they were formed of thin crescent-shaped plates of silver, the ends drawn out fine and twisted together. The jewellery of the Anglo-Saxons was of marvellous beauty and delicacy. This art is thus alluded to in a Saxon poem:—

“ For one a wondrous skill
in goldsmith’s art
is provided:
full oft he decorates
and well adorns
a powerful king’s nobles,
and he to him gives broad
land in recompense.”



Fig. 271.



Fig. 272.

This did not, however, apply so much to the earrings as to the other jewellery of the period. They continued not very commonly in use till the fifteenth and sixteenth centuries, when the fashion had so increased as to raise the ire of Stubbs and other writers. He says the women "are not ashamed to make holes in their ears, whereat they hang rings, and other jewels of gold and precious stones." Despite the rebukes of writers, this pretty and elegant fashion has continued to our own day, and probably will last as long as dress and fashion.

Finger-rings of Roman workmanship are occasionally found in this country, as are others of the Anglo-Saxon period. Of the latter a fine example, of gold, is preserved in the Ashmolean museum. It was not an uncommon thing for the Saxon jeweller to set Roman intaglios in gold as rings, and a superstitious value was attached to them as charms or amulets. In the thirteenth and fourteenth centuries rings took various enriched forms, but were generally broader and thicker in front than elsewhere. Rings are usually found in the coffins of mediæval church dignitaries ; they indicated their station, and denoted their being wedded to the Church. Some of these ecclesiastical rings are of great beauty. During the fifteenth century, rings in great profusion occur on the fingers of female effigies. They were frequently engraved with figures of saints, or with emblems or other devices, and exhibit an endless variety of form and pattern. "Posy

rings" are rings bearing mottoes—a single line or a rhyming couplet—generally placed *outside* the ring in the fourteenth and fifteenth centuries, and *inside* in the sixteenth and seventeenth. Many of these "posies" are charming in their epigrammatic quaintness, in their good sentiment, and their appropriateness. For instance :—

"This hath alloy, my love is pure."

"The diamond is within"

(meaning, of course, that the finger it encircles is more valuable than the ring itself).

"Constancy and heaven are round,
And in *this* the emblem's found."

"This and the giver
Are thine for ever."

Gimmel rings were rings matrimonial, and were made with a double link, having a hand upon each, so that when brought together it formed a perfect ring with the hands clasped in each other—"the two made one." Rings were also frequently made in triplets, and otherwise. Signet rings made for wearing on the thumb, and thus called "thumb rings," were formerly common. Falstaff declares that when young he could have crept into an alderman's thumb ring! Cramp rings and other charm and amulet rings are also not uncommon.

Fibulæ, or brooches, are among the most universal of personal ornaments of both male and female in prehistoric times, and have so continued without

interruption to our own day. The skin garment of the ancient Briton, there can be no doubt, was fastened with a pin or skewer made of bone ; and the same kind of pin was used for fastening together the skin, or shroud, in which bodies were sometimes interred, or in which the collected burnt bones are enclosed. Many such pins are found in barrows and with other Celtic remains. They are frequently perforated at their articular end, and cut,



Fig. 273.

or rubbed, obliquely at the other end to form a point. Some of these may have been used as lance or arrow heads, but certainly many of them were fasteners, for "fastening the dress, to which they were secured by a string (or thong) passed through the hole, so as to prevent their being lost." Bone pins or skewers, closely resembling those from British barrows,



Fig. 274.

are of frequent occurrence on the sites of Roman occupation. In the name of *fibula* as applied to the small bone of the leg, we have an acknowledgment of adaptability for making such pins : in the same way as the name of its concomitant

tibia, designates the bone best adapted for making flutes. Sculptured figures of Gauls show a circular fibula, or brooch, for fastening the dress, but no such object has ever been brought to light in our country, and therefore it is only reasonable to conclude that they were here unknown.

Probably, however, some of the objects which are classed

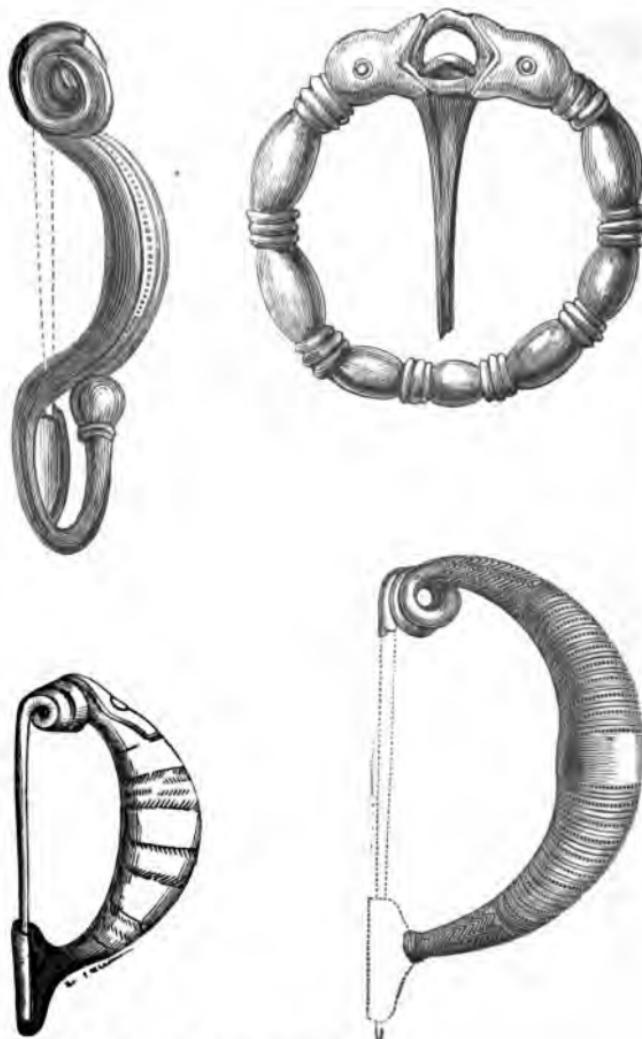
under the general heads of "spindle-whorls" and "discs" and "studs" may have been used as dress-fasteners. The one engraved on the opposite page (Fig. 274), from Mr. Evans's excellent book, is more highly ornamented than usual.

The fibulæ of Romano-British times are of almost endless variety in form, in size, and in material; they are but, however, very occasionally found with interments, being mostly turned up in the course of excavations and agricultural operations.

The commonest form, perhaps, is that which is usually called harp-shaped, or bowed, and this is of such extreme variety that scarcely two examples out of the hundreds that are known are precisely alike. Some have a crossbar at the top, and are hence called "cruciform;" and others have coiled springs of wire at the top, variously fashioned. Some of these are complicated and ingenious. The more simple of the twisted springs, a coiled spring only, formed by the end of the bow being



Fig. 275.



Figs. 276 to 279. Examples of Fibulæ of various periods.

attenuated into the pin, is known as the "rat-trap spring," from its coiled resemblance to the spring used in those "vermin killers." This form of fibula is generally known as the "dolphin" shape. Occasionally examples formed of wire only, twisted in like manner as recently reproduced for nursery and skeleton shawl-pins, are found. Sometimes the fibula really assumed the form of an animal, a bird or a serpent, with an inflated body.

The ornamentation of fibulæ is as varied as the



Fig. 280.

form. Sometimes they are chased or engraved in minute patterns of rows of dots, scales, etc.; at



Fig. 281 to 293. Examples of Fibulæ of various periods.

others, enamelled or inlaid; and at others, again, raised ornaments are riveted upon their surface. Instances of S-shaped fibulæ also occur, as do many other grotesque forms. Circular fibulæ are occasionally met with, and these, like the bowed forms, vary very considerably in design. Sometimes they are flat on the face, and enamelled or inlaid in different colours. One of the most curious, but elegant, modifications of the circular form is Fig. 294, where

the ends, which are serpents' heads, are turned back to the sides of the body. Sometimes the fibula assumes the form of a flat circular plate, enamelled or otherwise ornamented.

The fibulæ of the Anglo-Saxon period possess considerable interest, not merely from their design and excellent workmanship, or their forms and styles of ornamentation, but because by their varieties the different kingdoms of the Saxons to which they belonged can, in great measure, be determined. The more elaborate, and at the same time the richest in effect, are those of circular form, which, although found in various parts of the kingdom, are more abundant in the barrows of Kent than elsewhere. Of these a remarkably fine example was found in 1771, "near the neck, or rather more towards the right shoulder," of the female skeleton



Fig. 294.

in a grave on Kingston Down, along with some small silver fibulæ, a golden amulet, some small hinges, a chain, some bronze vessels, pottery, and a variety of other articles. This fibula, which is quite unique, "stands at the head of a class by no means extensive, characterized by being formed of separate plates of metal, enclosed by a band round the edges. The shell of this extraordinary brooch is entirely of gold. The upper surface is divided into no less than seven compartments, subdivided into cells of various forms. Those of the first and fifth are semi-circles, with a peculiar graduated figure, somewhat resembling the steps or base of a cross, which also occurs in all the compartments, and in four circles, placed cross-wise with triangles. The cells within this steplike figure and the triangular are filled with turquoises; the remaining cells of the various compartments with garnets, laid upon gold-foil, except the sixth, which forms an umbo, and bosses in the circle, which are composed apparently of mother-of-pearl. The second and fourth compartments contain vermicular gold chain-work, neatly milled and attached to the ground of the plate. The reverse of the fibula is also richly decorated." The vertical hinge of the *acus* is ornamented with a cross set with stones, and with filigree work round its base. The clasp which receives the point of the *acus* is formed to represent a serpent's head, the eyes and nostrils of which, and the bending of the neck, are marked in filigree. This precious

jewel was secured by a loop which admitted of its being sewn upon the dress.

Another remarkably fine example, found on the breast of a female skeleton in Berkshire, is in the Ashmolean museum. It measures two inches and seven-eighths in diameter. The base is formed of a thin plate of silver, above which, resting apparently on a bed of paste, is a plate of copper, to which is affixed a framework of the same metal, giving the outline of the pattern. The four divisions of the exterior circle were originally filled with paste, on which were laid thin laminæ of gold, ornamented with an interlaced pattern in gold wire of two sizes, delicately milled or notched, resembling ropework. Of these compartments one is now vacant. This wire ornament was pressed into the gold plate beneath, and there are no traces of any other means than pressure having been used to fix it. The four smaller circles and that in the centre are ornamented with bosses of a white substance, either ivory or bone, but the material is so much decomposed, it is difficult to say which; these bosses are attached to the copper plate beneath by iron pins. The entire face of the fibula was originally set with small pieces of garnet-coloured glass laid upon hatched gold-foil. Another was discovered some years ago in a barrow on Winster Moor, in Derbyshire. It was formed of gold filigree work, mounted on a silver plate, and was set with stones or paste on chequered gold-foil. Along with this fibula were

found a cross of pure gold, ornamented, like the fibula, with filigree work, and having a garnet cut in facets set in its centre; a silver armlet; two glass vessels; and a number of beads. Many of the circular fibulae are of a much smaller and less elaborate character than those engraved. They appear to have been worn by the Anglo-Saxon ladies on the breast or, occasionally, shoulder. They were probably, therefore, used for fastening the dress on the bosom, as is so often seen in illuminated MSS. and on tombs of a later period.



Fig. 295.

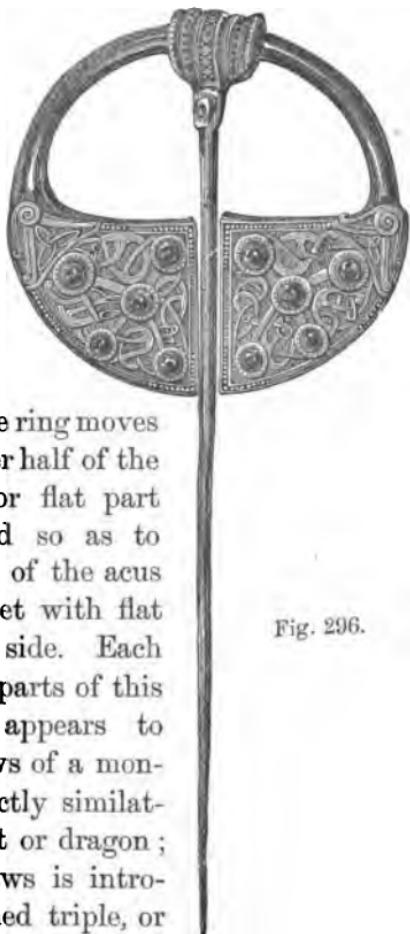
Another class is what is usually called, though not very satisfactorily, cruciform, or cross-shaped. These are more commonly found in the midland and south-

eastern counties, but are of very rare occurrence in Kent. They appear, therefore, to have appertained mostly to the Angles, who were the inhabitants of Mercia, East Anglia, and Northumbria. They are sometimes of silver, but usually of bronze, and are variously ornamented with interlaced work, heads, and borders of various designs. Their form will be best understood from the engravings. (See pages 215, 216.)

Another totally distinct kind of fibula, or brooch, which is considered to be peculiarly of Irish type, but which, nevertheless, is occasionally met with in England, is that of penannular form,* the general type of which will be understood by the engraving.

In Fig. 296, from Westmoreland (which is of silver), the ring moves freely round the upper half of the brooch, the lower or flat part of which is divided so as to allow of the passage of the acus through it. It is set with flat bosses, five on either side. Each of these flat dilated parts of this curious ornament appears to proceed from the jaws of a monstrous head, imperfectly simulating that of a serpent or dragon; and between the jaws is introduced the intertwined triple, or *triquetra*, the same ornament

Fig. 296.



* For a more extended and fully illustrated account of penannular brooches the reader is referred to the "Reliquary," vol. iii.

which is found on the sculptured cross at Kirk Michael, Isle of Man, and on some Saxon coins.

By far the finest English example was found in 1862, near Bonsall, in Derbyshire. It is of bronze, and measures three inches and seven-eighths in its greatest diameter, and the acus is six inches and three-quarters long. It had originally been set with amber or paste, and richly gilt and enamelled. The interlaced ornaments are elaborately formed, and of great variety, and the heads of animals are of excellent and characteristic form. The head of the acus, or pin, is beautifully ornamented, and has been set with studs. One or two examples of penannular brooches bearing inscriptions in Ogham characters have been found.

Of the mode of wearing penannular brooches, the late Mr. Fairholt wrote: "By the sumptuary laws of the ancient Irish, the size of these brooches, or *fibulæ*, was regulated according to the rank of the wearer. The highest price of a *silver* bodkin for a king or an *ollamh*, according to *Vallancy*, was *thirty* heifers, when made of refined silver; the lowest value attached to them being the worth of three heifers. From this it may be inferred that the rank of the wearer might always be guessed at from the *fibulæ* he wore." The rank of the wearers of the "Tara Brooch"—the most famous of all the Irish brooches at present known—and of the Derbyshire example, must, judging from their large size and truly exquisite workmanship, have been high.

The extreme rarity of brooches of this form in England leads one, naturally, to the conclusion that they were not much worn by the inhabitants of this country, and that, therefore, they can hardly be considered to belong to the nationality, if I may so speak, of the Anglo-Saxons. Nevertheless, examples having been here found in close proximity to undoubted Anglo-Saxon remains, and the style of ornamentation being strictly in keeping with much belonging to that period, there can be no doubt that they must be included amongst our Anglo-Saxon antiquities.

The fibula in Norman times was more like an ornamented circle of jewels and stones, with a central pin; and its name "brooch" is derived from this article, and its resemblance to a spit (French *broche*). Sometimes they were plain, at others more or less ornamented, and occasionally decorated with figures in high relief. This continued to be worn to a comparatively late period; not unfrequently they bore inscriptions. In the fifteenth and sixteenth centuries brooches were commonly worn by all persons of rank and substance, and were of great variety and beauty. Their forms will be tolerably familiar to everybody from the many representations which occur on monumental effigies. Analogous to brooches were pilgrim's signs; these were badges worn to show the performance of a pilgrimage to some particular shrine, and bearing a figure, emblem, or other device, and occasionally a word or two.

Armlets or bracelets are of great antiquity. With the Greeks they were peculiar to the ladies, but among the Romans were worn by men, and conferred on soldiers for heroic deeds. They were thin plates of gold or bronze, more or less ornamented or else stout wires of the same metals twisted like a cord—a form alluded to in the “Iliad” as “twisted spirals.” Strutt speaks of “an arm-bracelet men-

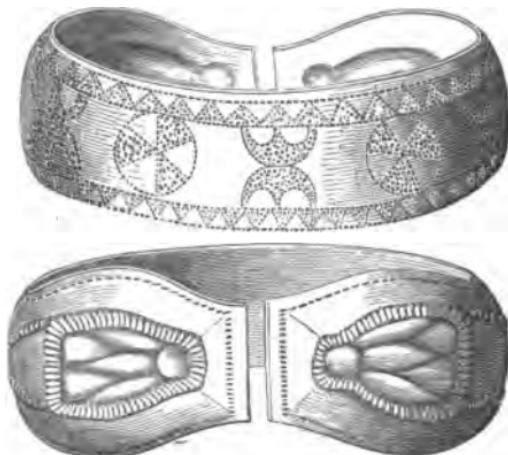


Fig. 297.

tioned in the testament of a Saxon nobleman, which weighed 180 mancuses of gold, or about twenty ounces troy weight; another, bequeathed to the queen, thirty mancuses of gold, or about three ounces and a half; and a neck bracelet (or torque), forty mancuses of gold, or nearly five ounces. The bracelets of gold upon the arms of soldiers belonging to a magnificent galley, which

was presented by Earl Godwin to Hardicnut, weighed eight ounces each." The pair of armillæ (Fig. 297) are of base silver; they were found at Stony Middleton, in Derbyshire, where many Roman remains have been found.

"Torques. Wreathed ornaments for the neck (from *torquere*, to twist), worn by the Celtic and barbaric nations of antiquity, and adopted from

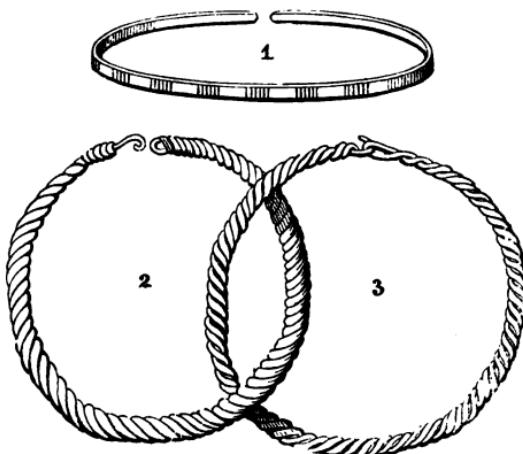
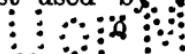


Fig. 298.

them by the aboriginal Britons," is the not very lucid description of these curious articles given by a well-known writer. It is one of the most marked of personal ornaments, and there can be no doubt was worn, as there is evidence to prove, both by the ancient Briton and by his Roman conqueror. The torque, or torquis, is said, by ancient writers, to have been first used by the



Persians, and by the nations of Northern and Western Europe. Virgil describes it as worn by the Trojans when they came to colonize Italy:—

“Omnibus in morem tonsa coma pressa corona,
Cornea bina ferunt præfixo hastilia ferro;
Pars leves humero pharetras; it pectore summo
Flexilis obtorti per collum circulus auri.”

It is first mentioned in Roman history in the year 360 B.C., when Manlius, having torn a torque of gold from the neck of a vanquished Gaul—here is evidence of its being a decoration worn by a similar race to our ancient British population *before* being spoken of in Roman history—placed it on his own, and received, from this circumstance, the name of Torquatus. From this time the practice was adopted in the wars with the Gauls—the example set by Torquatus Manlius being frequently followed by the Roman leaders, and the torque being adopted as a reward for military merit. “The Roman writers speak of them as worn by the Britons, and the Queen of the Iceni, Boadicea, is described by Dion Cassius as having a torquis of gold round her neck. This was the metal of which they were usually made. They consisted of a long piece of gold, twisted or spiral, doubled back in the form of a short hook at each end, and then turned into the form of a circle.” The torque was known to, and worn by, the Egyptians, the Persians, Persepolitans, the Gauls, and the Britons, as well as, later on, to the Romans, and it was very

usual, as is evident by the many examples which have been found, with the Irish Celts. The most usual forms will be found engraved in the catalogue of the Royal Irish Academy, the largest known example measuring five feet seven inches in length. A remarkably fine example of this type, found on the borders of Derbyshire and Staffordshire,

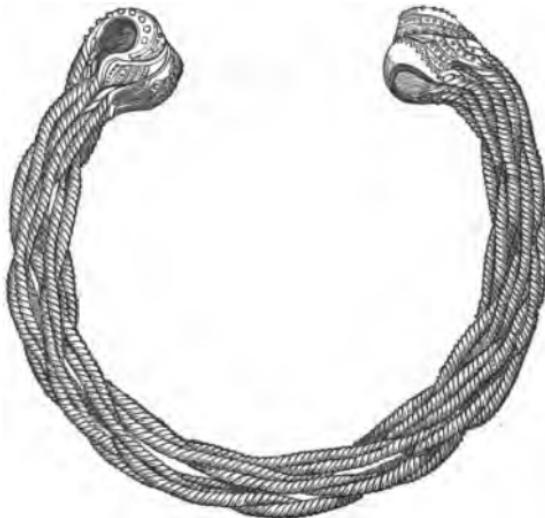


Fig. 299.

measures three feet nine and a quarter inches. Many other varieties are found, sometimes formed of square bars of gold twisted spirally, sometimes of flat bars of the same metal twisted in a lighter manner, sometimes, again, of more than one bar twisted together, and occasionally beaten out into flat plates of gold in front, attenuated and riveted

for fastening at the ends. These lunar-shaped objects, however, are supposed to be the *jodhian morian*, or breastplate of judgment, of the chief priest of the Druids, which was believed to possess the power of strangling the wearer who gave false judgment. The ends, too, are of various forms: sometimes being simply hooks, and at others swelling out into cup-shaped terminations, and at others partaking of the form of a serpent's head, etc. A remarkable torque (Fig. 299), now belonging to her Majesty, was found in 1848 in Needwood Forest. It is formed of eight cords of gold plaited together, and weighs 1 lb. 1 oz. 7 dwts. 10 grains. It is safer, perhaps (although, as I have said, there is no doubt that torques were worn by the Romans), to assign them to the British period rather than to that of their conquerors.

Bone and bronze pins, hair-pins often nicely carved at the head, châtelaines—for the Saxon ladies, as well as those of succeeding periods, wore these articles—and many other objects of household use and personal adornment remain to be briefly noticed.

Combs of the Anglo-Saxon period differ but little from those of the Romans, or indeed from those of the present day. They were, both Roman and Saxon, sometimes toothed on one side and sometimes on both sides, and were made alike of wood, of metal, of bone, and of ivory. Boxwood appears to have been so much used for the manufacture of

combs as to have occasionally given its own name to them. Thus Martial says :—

“ *Quid faciet nulos hic inventura capillos,
Multifido buxus quæ tibi dente datur?* ”

Wooden combs have naturally for the most part perished, but fragments have occasionally been found. Combs, both of bronze and iron, of the

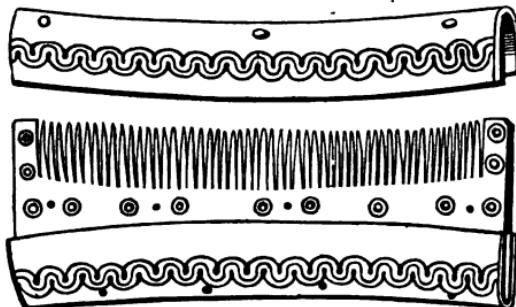
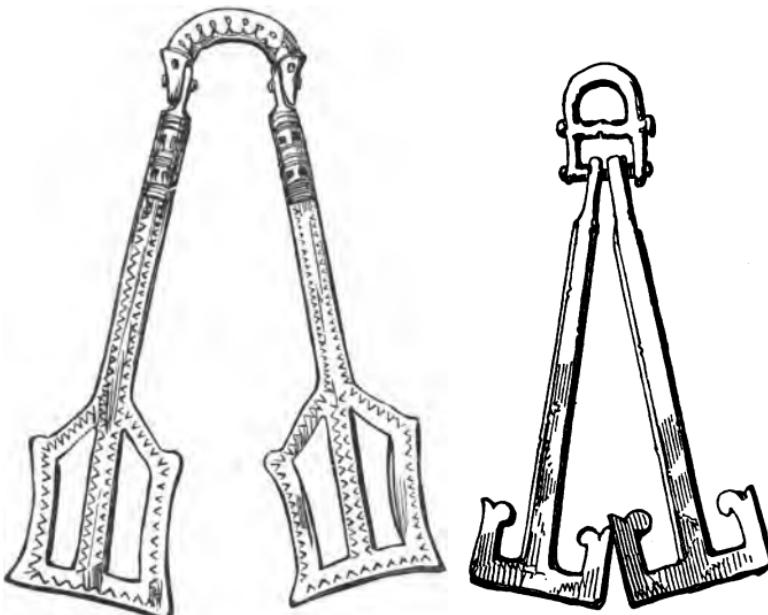


Fig. 300.

Roman period, have also been discovered. The greater part, however, both of that and of the Saxon period, which have been exhumed, are of bone and ivory.

Châtelaines or girdle-hangers consist of a bunch of small implements of various kinds—keys, tweezers, scissors, tooth-picks, ear-picks, nail-cleaners, etc., and ornaments of one kind or other—hung on a chain or frame, which being attached to the girdle hung down by the side to the thigh, or, in some instances, evidently as low as the knee. The various instruments are of silver, bronze, or iron, and are generally, the iron especially, corroded into

an almost shapeless mass; the silver and bronze, being more durable, are better preserved. A bunch of what is supposed to be three latch-keys occurs in one example, and in the engraving below (Fig. 301) are two curious objects, the use of which has probably been to hang small instruments on,



Figs. 301 and 302.

to attach them to the girdle. For the same use, probably, are the curious and somewhat puzzling objects which are shown in Fig. 302. They are found in pairs, attached at the top, and vary much in the pattern of the lower extremities. Probably the girdle passed through the upper part, and keys

and other objects would be hung on the lower ends. A large variety of girdle ornaments have been found in different districts.

Of locks and keys, scales and weights, and many other articles, it will not be necessary to speak at further length than simply to note that they are sometimes found in Roman and Saxon graves. Bells—small hand-bells—too, are found in the graves of women. They are of bronze or iron, and of the rectangular form so characteristic of Saxon bells of larger size. Bone counters, or draughtsmen, and dice of the Saxon period are occasionally met with.

Mirrors of metal are found in Roman graves, and



Fig. 303.

occasionally in those of Saxon times. Shears or scissors of iron, some of which are of precisely the same form as our modern sheep-shears, and others of the shape of scissors of the present day, are of not unfrequent occurrence. The usual form of tweezers is shown in Fig. 303. They are of bronze, and are said to have been used for pulling out superfluous hairs from the body. They, with the scissors, were frequently worn attached to the girdle, along with other instruments.

Buckets, appropriately so called from their close

resemblance in form to our modern buckets, are small wooden vessels bound round with hoops or rims of bronze or silver, more or less ornamented, and have a handle of the same metal arched over

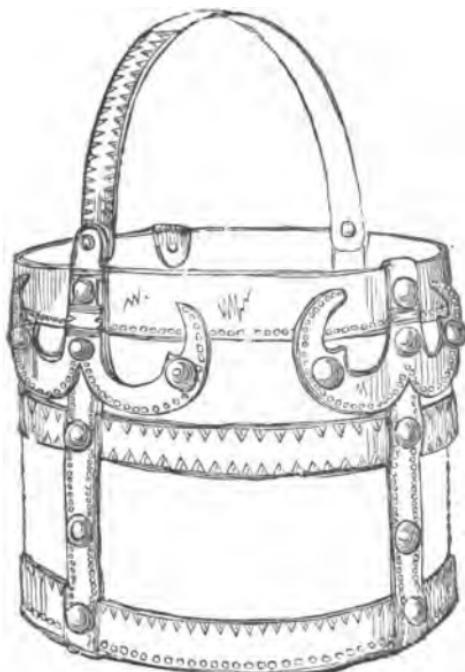
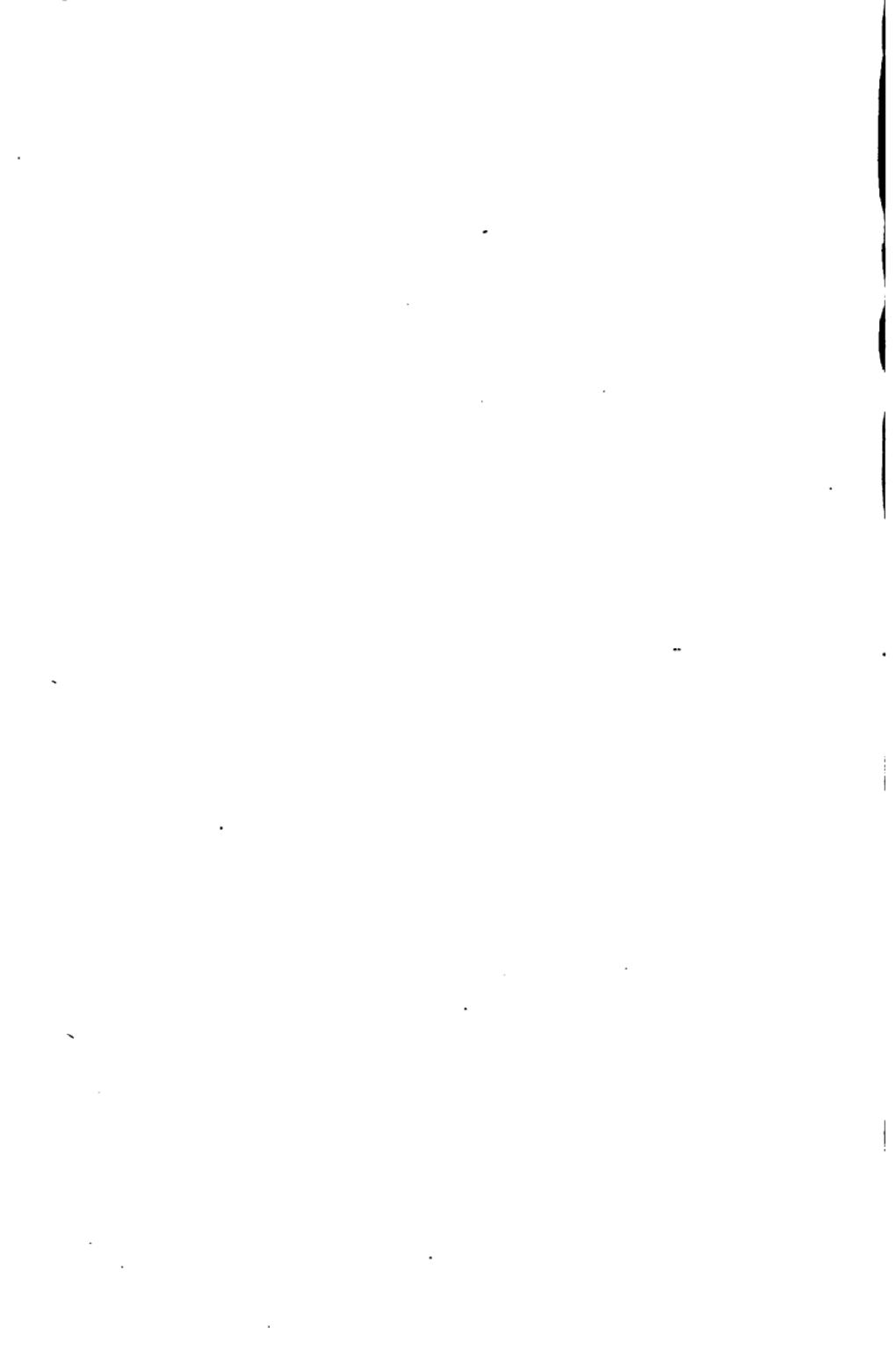


Fig. 304.

their tops. Of course the staves of ash, of which they were composed, are nearly decomposed, the hoops, handle, and mountings alone remaining. They vary much in size; one from Bourne Park had the lower hoop twelve inches in diameter, and the upper one ten inches, and the whole height

appears to have been about a foot; the handle was hooked at its ends exactly the same as in our present buckets, and fitted into loops on the sides; it had three looped bronze feet to stand upon. Others only measure four or five inches in diameter. The example (Fig. 304), found in Northamptonshire, is composed of three encircling hoops of bronze, and has its handle and attachments also of the same metal. One found at Fairford is three inches in height, and four inches in diameter. The hoops and mountings are of bronze. Another, from Brighthampton had its metal mountings of an unusually ornate character. The wood, too, was in great measure preserved. Of the use of these utensils nothing certain, of course, is known, but it is conjectured they were used for bringing in mead, ale, or wine, to fill the drinking-cups—the objection to this as a general rule being their very small size. “The Anglo-Saxon translation of the Book of Judges (vii. 20) rendered *hydrias confregissent* by ‘*to-bnœcon pa bucār*,’ i.e. ‘they broke the buckets.’ A common name for this vessel, which was properly called *buc*, was *œscen*, signifying literally a vessel made of ash, the favourite wood of the Anglo-Saxons.”



INDEX.

Abney Moor, 25.
Abury, 16, 18.
Adderbury, 179.
Aidan, St., 115.
Ainstaple, 122.
Aldborough, 67.
Alderton, 170.
Ale-glasses, 185.
Altars, Roman, 69.
Altar tombs, 133.
Amber beads, 206, 208.
Ancaster, 73.
Ancient British. *See* Celtic.
Andamanese women, 203.
Anglo-Saxon arms, 103-110.
——— barrows, 10.
——— bells, 154, 155.
——— coins, 143-145.
——— glass, 184, 185.
——— personal ornaments, 206-231.
——— poem of Beowulf, 11, 12, 105, 106, 185.
——— pottery, 98.
Antoninus, Wall of, 65.
Arbor Low, 15, 19, 21.
Armlets, 224.
Armour, 102-113.
Arms and armour, 102-113.
Ashbourne, 156.
Ashbury, 8.
Assynt, 205.
Aston Rowant, 166.
Aycliffe, 125.
Bakewell, 72, 164, 165, 191.
Banbury, 167.
Barlaston, 106.
Barnard Castle, 121.
Barrows, Anglo-Saxon, 10-13, 102-110.
——— Celtic, 1-9, 14-30, 204, 205.
——— chambered, 7.
——— construction of, 3-30.
——— Romano-British, 9.
Bath, 70, 75.
Bayeux tapestry, 197, 198.
Beads, 179, 204, *et seq.*
Beaulieu, 196.
Bedale, 119.
Bedford, 129.
Bees, St., 115.
Begu, St., 114.
Bell, curfew, 177.
——— founders, 127, 153-178.
——— funeral, 176.
——— legend of the, 153, 154.
——— marks, 159, 160.
——— passing, 176.
——— pudding, 177.
——— sacring, 156, 175.
——— sanctus, 158, 175.
——— sermon, 177.
Bells, 152-178.
——— decorations upon, 158, 160.
——— hand, 175.
——— inscriptions on, 161-171.

Bells, lettering upon, 158.
 — origin of, 153, 154.
 Benty Grange, 103, 106.
 Beowulf, 11, 105, 110, 185.
 Berriew, 28.
 "Big bells," 171-175.
 — Ben," 173, 174.
 — Peter," 172.
 Bignor, 67.
 Binstead, 169.
 Bittern, 141.
 Boar, 105, 106.
 Bone pins, 212, 228.
 Bonsall, 156, 222.
 Boscawen-ûn, 15, 19, 28.
 Bourges, 76.
 Bracelets, 224.
 Brampton, 128.
 Brasses, how to rub, 133.
 — sepulchral, 129-136.
 Brassington Moor, 24.
 Breaston, 156.
 Bredon, 191, 194.
 Bridges, 64.
 Bristol, 144.
 Broadchalk, 168.
 Broad Down, 22.
 Broggar, 19.
 Bromham, 168.
 Bronze, celts, 48-59.
 — implements of, 48-61.
 — pins, 228.
 Brooches, 211-223.
 Brougham, 136.
 Buckets, 232.
 Buckles, 106, 107.
 Bulmore, 76.
 Burchester, 200.
 Burtley, 169.
 Caerleon, 67, 75, 76.
 Caerwent, 67.
 Cairns. *See Barrows.*
 Calais Wold, 45.
 Callernish, 25.
 Calne, 169.
 Cambridge, 170.

Canterbury, 66, 67, 144, 172, 189, 202.
 Carillons, 178.
 Carlisle, 202.
 Carvoran, 74.
 Castle Rigg, 19.
 Castor ware, 92.
 Celtic barrows, 1-9, 14-30, 204, 205.
 — bronze implements, 48-61.
 — coins, 139, 140.
 — flint instruments, 40-47.
 — glass, 179.
 — personal ornaments, 203, *et seq.*
 — pottery, 79-85.
 — stone implements, 31-40.
 Celts, bronze, 48-61.
 — stone, etc., 31-47.
 Chambered tumuli, 7.
 Chartham, 136.
 Châtelaines, 228.
 Chelmorton, 127.
 Chepstow, 122.
 Chester, 201.
 Chesters, 75.
 Chichester, 144.
 Church bells. *See Bell.*
 Cinerary urns, 79-100.
 Circles, stone, 14-30.
 Cirencester, 66, 67, 78.
 Claughton, 156.
 Coins, 137-151.
 — Anglo-Saxon, 143-145.
 — Celtic, 139, 140.
 — English, 146-151.
 — Norman, 145, 146.
 — Roman, 140-143.
 Colchester, 66.
 Combs, 126, 228.
 Coped tombs, 118.
 Copper, pig of, 78.
 Cotterstock, 67.
 Coventry, 167.
 Cramp rings, 211.

Cromlechs, 29, 30.
 Cross, 104, 118-128, 145, 157-160.
 Crowland, 155.
 Croydon, 178.
 Cuerdale, 145.
 Curfew, 177.

Daggers, 59, 60, 107-113.
 Dale Abbey, 192.
 Danbury, 135.
 Danby Moor, 45.
 Darley Dale, 126, 165.
 Dartmoor, 25.
 D'Aubernoun, 129.
 Deæ Matres, 73.
 Denbigh, 201.
 Derby, 144, 191.
 Devices on slabs, 114-136.
 Dewsbury, 119.
 Diana and Actæon, 68.
 Dorchester, 67, 121.
 Drinking cups, 88-100.
 Druidical circles, 14.
 Durham, 121, 122.
 Durobrivian pottery, 92-96.

Earrings, 209.
 Eastlow Hill, 9.
 East Moor, 25.
 East Shaftoe, 128.
 Eccleston, 121.
 Elfin-darts, 46.
 Elf-shots, 46.
 Elk Low, 23.
 Elton, 129.
 Encaustic tiles, 190.
 English coins, 146-151.
 Evesham, 144, 191.
 Exeter, 144, 172, 191.
 Eyam Moor, 19, 25.

Fairford, 233.
 Fairy-bolts, 46.
 —— darts, 46.
 Fibulae, 211-223.
 Fimber, 205.

Flaxley, 121.
 Flint implements, 31-47.
 Food vessels, 88, 85.
 Frampton, 67.
 Froggatt Edge, 25.
 Frome, 167.
 Funeral bell, 176.
 Fylfot cross, 157, 159.

Gib Hill, 5, 21.
 Gilling, 128.
 Gimbal rings, 211.
 Glass, 179-190.
 —— Anglo-Saxon, 183-185.
 —— beads, 179-181.
 —— Celtic, 179.
 —— Old English, 186.
 —— Roman, 180-182.
 —— sepulchral vessels, 181, 182.
 —— stained, 187-190.
 Gloucester, 67, 144, 193.
 Gorleston, 136.
 Gouge, 56.
 Grave-mounds. *See Barrows.*
 —— slabs and brasses, 114-136.
 —— stones, Roman, 74-78.
 Great Bedwyn, 191, 192.
 —— Bell of Glasgow, 173.
 —— Peter, of Exeter, 172.
 —— Tom of Oxford, 171.
 —— Lincoln, 171, 172.
 —— Toms, 171-175.
 Green Low, 45.
 Greystoke, 122, 127.
 Grey Wands, 19.
 Grime's Dyke, 65.
 Gundrada, Princess, 119.
 Gunthorpe, 45.

Haccombe, 193.
 Haddon Hall, 72.
 Haltwhistle, 122.
 Hampton, 144.
 Hand bells, 175.
 —— mills, 40.

Hartington, 129.
 Hartlepool, 114.
 Hastings, 198.
 Hathersage Moor, 25.
 Haughmond, 198.
 Helmet, 103, 104, 111-113.
 Hereford, 194.
 Heysham, 122.
 Himbleton, 170.
 Hob Hurst, 14.
 Housesteads, 70, 76.
 Hunnum, 78.
 Hypocausts, 68.
 Immolation urns, 85.
 Implements of flint, 40-47.
 —— stone, 31-40.
 Ipswich, 144.
 Jet ornaments, 203, 212, 213.
 Jewellery, 204-230.
 Kedleston, 128.
 Kenchester, 66, 67, 141.
 Keys, 231.
 Kingston Down, 218.
 Kirkby Stephen, 127, 128.
 Lanyon cromlech, 29, 30.
 Lead, pigs of, 78.
 Leam Moor, 25.
 Leckhampton, 106.
 Leeds, 172, 173.
 Legend of the Bell, 153, 154.
 Leicester, 64, 67, 68.
 Lewes, 119, 144.
 Lichfield, 202.
 Lightning, death by, 78.
 Lincoln, 66, 67, 144, 205.
 —— Great Tom of, 171.
 Lindisfarne, 115.
 Lismore, 116.
 Littlecote, 67.
 Llandaff, 158.
 Locks, 231.
 London, 66, 67, 141, 144.
 London, Great Bell of St.
 —— Paul's, 172.
 Long Meg, 19.
 Low. *See Barrow.*
 Lymne, 66.
 Lynn, 130.
 Malvern, 192, 193, 195.
 Manchester, 202.
 Margam, 121.
 Middleton Moor, 204.
 Milestones, 63, 64.
 Minning Low, 8.
 Mirrors, 231.
 Monumental brasses, 129-136.
 —— slabs, 74, 114-129.
 Moor Monkton, 128.
 Mortlake, 201.
 Moscow, Great Bell of, 174.
 Mostyn, 78.
 Mule Hill, 27.
 Necklaces, 203-209.
 Needlework, 196.
 Needwood Forest, 228.
 New Forest pottery, 98.
 Newhaven, 106.
 Newton Rigney, 127.
 "Nine Ladies," 15, 25.
 Norman armour, 110.
 —— arms, 110.
 —— coins, 146, 147.
 —— pottery, 100.
 Northfield, 170.
 Norwich, 144, 202.
 Nottingham, 166.
 Oxford, 201.
 —— Great Tom of, 171.
 Palstaves, 51-55.
 Passing bell, 176.
 Pavements, tessellated, 67.
 Paving tiles, 190.
 Peal-ringling, 177.
 Penannular brooches, 221-223.
 Penmeanmawr, 19, 29.

Pen-y-Bone, 205.
 Personal ornaments, 203-231.
 Peterborough, 202.
 Pilton, 171.
 Posy rings, 211.
 Potters' names, 90, 91.
 Pottery, Anglo-Saxon, 98-100.
 — Celtic, 79-85.
 — New Forest, 98.
 — Norman, 100.
 — Roman, 85-98.
 Pudding bell, 177.
 Purgatory hammers, 35.
 Querns, 40.
 Repton, 192.
 Ribchester, 72.
 Richborough, 141, 142, 143.
 Ringham Low, 9.
 Rings, cramp, 211.
 — ear, 209.
 — finger, 210.
 — gimmal, 211.
 — posy, 211.
 Roads, Roman, 62, 63.
 Rochester, 144.
 Rollrich, 19.
 Roman altars, 69-73.
 — bridges, 64.
 — buildings, 69.
 — coins, 140-143.
 — glass, 180-182.
 — grave-mounds, 9.
 — mile, 63.
 — milestones, 63, 64.
 — pavements, 67, 68.
 — personal ornaments, 206, 231.
 — pigs of lead, 78.
 — roads, 62, 63.
 — sepulchral slabs, 74.
 — towns, 66.
 — villas, 67.
 — Wall, 64, 65.
 Romsey, 121.
 Rubbing brasses 133.
 Sacring bell, 156, 175.
 Saint Aidan, 115.
 — Alban's, 130, 191.
 — Asaph, 127.
 — Bees, 115.
 — Begu, 114.
 — Benet's, 170.
 — Chad's, 156.
 — Clere, 135.
 — Cross, 191.
 — Dionys, 127.
 — Dunstan's, 172.
 — Hilda, 115, 116.
 — John's, 122.
 — Leonard's, 132.
 — Luke, 122.
 — Odoceus, 153.
 — Paul's, 129, 172.
 — Peter's, 166.
 — Pierre, 122.
 Salisbury Plain, 17, 18, 19, 20.
 Salopian ware, 96-98.
 Samian ware, 85-91.
 Sancreed, 27.
 Sanctus bell, 158, 175.
 Sandiacre, 156.
 Sawley, 156.
 Sceattæ, 143, 145.
 Scissors, 231.
 Seax, 107.
 Sepulchral brasses, 129-136.
 — crosses, 116-129.
 — slabs, 114-129.
 — stones, 74.
 — urns. *See* Pottery.
 Sermon bell, 177.
 Shaftesbury, 144, 169.
 Shears, 231.
 Shields, 107-113.
 Shrewsbury, 145, 191, 192, 193.
 Shuttlestone, 50.
 Silbury Hill, 16.
 Slabs, sepulchral, 114-129.
 Sling-stones, 47.
 Solway Moss, 34.
 Spear-heads, 61, 107-113.
 Spindle-whorls, 46.

Stained glass, 187-190.
 Stanshope, 60.
 Stanton Drew, 18, 19.
 —— Moor, 15, 25.
 Stennis, 18.
 Stockland, 170.
 Stockton-on-Tees, 173.
 Stoke Rivers, 170.
 Stonehenge, 16, 18.
 Stone implements, 31-47.
 Stonesfield, 67.
 Stony Middleton, 225.
 Stow, 117.
 Studs, 212, 213.
 Swords, 60, 61, 107-113, 121.
 Tapestry, 196-202.
 "Tara Brooch," 222.
 Tawstock, 191.
 Temples, Roman, 69.
 Tessellated pavements, 67, 68.
 Tewkesbury, 191.
 Thetford, 145.
 Tiles, paving, 190.
 Tintern, 191.
 Tissington, 110.
 Torques, 225.
 Traders' tokens, 151.
 Tranmere, 35.
 Trewavas, 27.
 Triturating stones, 40.
 Trumpington, 185, 136.
 Tumblers, 184.
 Tutbury, 195.
 Tweezers, 231.
 Tynemouth, 122.
 Umbones of shields, 108, 110.
 Upchurch ware, 91, 92.
 Uploman, 170.
 Uriconium, 66, 67.
 Urns. *See Pottery.*
 Verses on bells, 161-171.
 Villas, Roman, 67.
 Wallingford, 145.
 Wall, Roman, 64.
 Warblington, 194.
 Ware, Castor, 92-96.
 —— Salopian, 96, 98.
 —— Samian, 85-91.
 —— Upchurch, 91, 92.
 Welcombe, 170.
 Wells, 129, 191.
 Wenlock, 193.
 Wensley, 117.
 Westleigh, 191.
 Westminster, "Big Ben" of, 173.
 Whitby, 115.
 Wieland Smith's Cave, 8.
 Winchester, 118, 144, 191.
 Winster, 219, 220.
 Winterton, 67.
 Wirksworth, 156, 191.
 Woodchester, 67.
 Worcester, 145, 172, 190, 191,
 193.
 Wroxeter, 66, 67.
 York, 72, 74, 76, 119, 127, 145,
 202.
 —— Big Peter of, 172.

A CATALOGUE
OF WORKS OF
NATURAL HISTORY, SCIENCE,
ART, AND GENERAL LITERATURE,
PUBLISHED BY
Hardwicke & Bogue.



192, PICCADILLY, W.

HARDWICKE'S SCIENCE GOSSIP:

*An Illustrated Medium of Interchange and Gossip
for Students and Lovers of Nature.*

Edited by J. E. TAYLOR, F.L.S., F.G.S., &c.

Contains the fullest Information respecting Animals, Aquaria, Bees, Beetles, Birds, Butterflies, Ferns, Fish, Fossils, Fungi, Lichens, Microscopes, Mosses, Reptiles, Rocks, Seaweeds, Wild-flowers.

Monthly, price 4d. ; Annual Subscription, 5s. (including Postage).

Twelve Volumes are now published, bound in cloth, price 5s. each.

THE MONTHLY

MICROSCOPICAL JOURNAL:

*Transactions of the Royal Microscopical Society, and Record
of Histological Research.*

Edited by HENRY LAWSON, M.D., F.R.M.S.,

Assistant Physician to, and Lecturer on Histology in, St. Mary's Hospital.

Published monthly, price 1s. 6d. Annual subscription (including postage), 19s.

Sixteen Volumes are now ready, bound in cloth, price 10s. 6d. each.

THE

POPULAR SCIENCE REVIEW:

*A Quarterly Summary of Scientific Progress and Miscellany
of Entertaining and Instructive Articles on Scientific
Subjects by the Best Writers of the Day.*

Edited by W. S. DALLAS, F. L. S.,

Assistant Secretary of the Geological Society.

In addition to Articles which are of abiding interest, the POPULAR SCIENCE REVIEW contains a Complete Record of Progress in every Department of Science, including

ASTRONOMY.

BOTANY.

CHEMISTRY.

ETHNOLOGY.

GEOGRAPHY.

GEOLOGY.

MECHANICS.

METALLURGY.

MICROSCOPY.

PHOTOGRAPHY.

PHYSICS.

ZOOLOGY.

SCIENCES applied to the ARTS, MANUFACTURES, & AGRICULTURE.

Published Quarterly, price 2s. 6d. ; sent Post-free to any part of the United Kingdom for 10s. 10d. per annum.

*The early numbers having been reprinted, Volumes I. to XV.
may be had, bound in cloth, price 12s. each.*

London : HARDWICKE & BOGUE, 192, Piccadilly, W.



ACROSTICS.—One Hundred Double Acrostics. Edited by "Myself." 16mo, cloth gilt, 2s. 6d.

ANSTED, D. T., M.A., F.R.S.

THE APPLICATIONS of GEOLOGY to the ARTS AND MANUFACTURES. Six Lectures delivered before the Society of Arts. Illustrated. Fcap. 8vo, cloth, 4s.

ARMITAGE, T. R., M.D.

EDUCATION and EMPLOYMENT of the BLIND: What it has been, is, and ought to be. Demy 8vo, 2s. 6d.

BALL, E.

INVENTIVE DRAWING: A Practical Development of Elementary Design. 4to, bds., 6s.

BARKER, S., M.D.

MANAGEMENT OF CHILDREN in Health and Disease: A Book for Mothers. Demy 8vo, 6s.

BARNARD, H.

ORAL TRAINING LESSONS IN NATURAL SCIENCE AND GENERAL KNOWLEDGE: Embracing the subjects of Astronomy, Anatomy, Physiology, Chemistry, Mathematics, Geography. Crown 8vo, 2s. 6d.

BELCHER, REV. HENRY, M.A.

DEGREES AND "DEGREES"; or, The Traffic in Theological, Medical, and other "Diplomas" Exposed. Demy 8vo, 1s. 6d.

BENSON, J. W.

TIME and TIME TELLERS: A Book about Watches and Clocks. With many Woodcuts. Crown 8vo, cloth, 2s. 6d.

BIRKS, PROFESSOR, Camb.

THE UNCERTAINTIES of MODERN PHYSICAL SCIENCE; being the Annual Address of the Victoria Institute, or Philosophical Society of Great Britain, for the Year 1876. 8vo, 6d.

BLINCOURT, A. de, B.E.L.

FRENCH GENDERS: An Easy Method of Distinguishing them at Sight. 8vo, 6d.

BONER, CHARLES.

IN THE PLAIN AND ON THE MOUNTAIN: A Guide for Pedestrians and Mountain Tourists, With Illustrations of Dress requisites, &c. Fcap. 8vo, cloth, 2s.

BOOK of KNOTS. Illustrated by 172 Examples, showing the manner of Making every Knot, Tie, and Splice, by "Tom Bowling." Second Edition. Crown 8vo, cloth, 2s. 6d.

BOTANY SIMPLIFIED ON THE NATURAL SYSTEM. Crown 8vo, cloth, 1s.

BRIOT, M.C.

ELEMENTS OF ARITHMETIC. Translated by J. SPEAR. Crown 8vo, cloth, 4s.

BURBIDGE, F. W.

COOL ORCHIDS, AND HOW TO GROW THEM. With Descriptive List of all the best Species in Cultivation. Illustrated with numerous Woodcuts and Coloured Figures of 13 Varieties. Crown 8vo, cloth, 6s.

BUSHNAN, J. S., M.D., F.R.S.

INTRODUCTION TO ICHTHYOLOGY. With 33 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

CAPEL, C. C.

TROUT CULTURE. A Practical Treatise on Spawning, Hatching, and Rearing Trout. Fcap. 8vo, cloth, 2s. 6d.

CARPENTER, ALFRED, M.D.

HINTS on HOUSE DRAINAGE. Second Edition, with Appendix. 8vo, sewed, 1s.

CARRINGTON, B., M.D., F.R.S.

BRITISH HEPATICÆ. Containing Descriptions and Figures of the Native Species of Jungermannia, Marchantia, and Anthoceros. Imp. 8vo, sewed, Parts 1 to 4, each 2s. 6d. plain; 3s. 6d. coloured. To be Completed in about 12 Parts.

CASH, JAMES.

WHERE THERE'S A WILL THERE'S A WAY; or, Science in the Cottage; being Memoirs of Naturalists in Humble Life. Crown 8vo, cloth, 3s. 6d.

CHAMISSO, ADALBERT VON.

PETER SCHLEMIHL. Translated by Sir JOHN BOWRING, LL.D., &c. Illustrations on India paper by GEORGE CRUIKSHANK. Crown 8vo, cloth, 5s.

CHANGED CROSS (THE). Words by L. P. W. Illuminated by K. K. Dedicated to the Memory of those blessed ones who having, "through much tribulation," finished their course with joy, now rest from their labours; and to those also who are still running with patience the course set before them, "Looking to Jesus." Square 16mo, elegantly printed, with Illuminated Crosses and Border Lines, 6s. See also "*Crown of Life.*"

CHANGED CROSS (THE). A Large Edition of the above work, printed in outline on best Plate Paper, for those persons who, being proficient in the art of Illumination, wish to illuminate the work according to their own tastes. Fcap. 4to, handsomely bound, cloth gilt, 6s.

COELEBS. THE LAWS AND PRACTICE OF WHIST. Square 16mo, cloth, 2s. 6d.

COLLECTION CATALOGUE for NATURALISTS. A Ruled Book for keeping a permanent Record of Objects in any branch of Natural History, with Appendix for recording interesting particulars, and lettered pages for general Index. Strongly bound, 200 pages, 7s. 6d.; 300 pages, 10s.; and 2s. 6d. extra for every additional 100 pages. Working Catalogues, 1s. 6d. each.

COMPANION TO THE WRITING DESK. See "*How to Address Titled People.*"

CONCHOLOGY, Quarterly Journal of. Containing Original Communications, Descriptions of New Species, Bibliography, &c. Demy 8vo, Parts 1 to 9, each 6d. Part 10, 1s.

COOKE, M. C., M.A., LL.D.

A PLAIN and EASY ACCOUNT of THE BRITISH FUNGI. With especial reference to the Esculent and other Economic Species. Third Edition, revised. With Coloured Plates of 40 Species. Fcap. 8vo, cloth, 6s.

THE BRITISH REPTILES: A Plain and Easy Account of the Lizards, Snakes, Newts, Toads, Frogs, and Tortoises indigenous to Great Britain. Numerous Illustrations, Coloured by hand. Fcap. 8vo, cloth, 6s.

RUST, SMUT, MILDEW, AND MOULD. An Introduction to the Study of Microscopic Fungi. Illustrated with nearly 300 Coloured Figures. Second Edition, with Appendix of new Species. Fcap. 8vo, cloth, 6s.

COOKE, M. C., M.A., LL.D.

A MANUAL OF BOTANIC TERMS. New Edition, greatly enlarged, including the recent Teratological terms. Illustrated with more than 300 Woodcuts. Fcap. 8vo, cloth, 2s. 6d.

A MANUAL OF STRUCTURAL BOTANY. Revised Edition, with New Chemical Notation. Twentieth Thousand. Illustrated with 200 Woodcuts, 1s.

INDEX FUNGORUM BRITANNICORUM. A Complete List of Fungi found in the British Islands to the present date. 8vo, cloth, 2s. 6d.

CRESSWELL, C. N., of the Inner Temple.

WOMAN, AND HER WORK IN THE WORLD. Crown 8vo, cloth, 3s. 6d.

CROWN OF LIFE (THE). By M. Y. W. With elegantly Illuminated Borders from designs by ARTHUR ROBERTSON. Uniform with "*The Changed Cross.*" Fcap. 4to, cloth extra, 6s.

DANIEL, P. A.

SHAKESPEARE'S PLAYS, Notes on Conjectural Amendments of certain Passages in. Crown 8vo, 3s. 6d.

DARBY, W. A., M.A., F.R.A.S.

THE ASTRONOMICAL OBSERVER : A Handbook for the Observatory and the Common Telescope. Embraces 965 Nebulae, Clusters, and Double Stars. Rl. 8vo, cloth, 7s. 6d.

DAVIES, THOMAS.

THE PREPARATION and MOUNTING of MICROSCOPIC OBJECTS. New Edition, greatly Enlarged and brought up to the Present Time by JOHN MATTHEWS, M.D., F.R.M.S., Vice-President of the Quekett Microscopical Society. Fcap. 8vo, cloth, 2s. 6d.

DICK, Capt. ST. JOHN.

FLIES AND FLY FISHING. Illustrated. Crown 8vo, cloth, 4s. 6d.

DUNCAN, JAMES, F.L.S.

INTRODUCTION TO ENTOMOLOGY. With 8 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

BRITISH BUTTERFLIES : A complete description of the Larvae and full-grown Insects of our Native Species. With Coloured Figures of Eighty Varieties. Fcap. 8vo, cloth, 4s. 6d.

DUNCAN, JAMES, F.L.S.

BRITISH MOTHS: A complete description of the Larvæ and full-grown Insects of our Native Species. With Coloured Figures. Fcap. 8vo, cloth, 4s. 6d.

BEETLES, BRITISH AND FOREIGN. Containing a full description of the more important species. With Coloured Figures of more than One Hundred Varieties. Fcap. 8vo, cloth, 4s. 6d.

NATURAL HISTORY of EXOTIC BUTTERFLIES. With 36 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

NATURAL HISTORY OF EXOTIC MOTHS. With 34 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

ECONOMIC PRODUCTS (Principal) FROM THE VEGETABLE KINGDOM. Arranged under their respective Natural Orders, with the names of the Plants and the parts used in each case. Demy 8vo, 1s. 6d.

ELEMENTARY SCIENCE SERIES. Intended for the Use of the People and for Self-instruction. Each volume is fully Illustrated. **MECHANICS**, 4d.; **HYDRAULICS**, 2d.; **HYDROSTATICS**, 2d.; **OPTICS**, 4d.; **CHEMISTRY**, 6d.; **PNEUMATICS**, 2d. The Six Volumes in One, cloth, 1s. 6d.

ELVIN, C. N., M.A.

A SYNOPSIS OF HERALDRY. With 400 Engravings. Crown 8vo, cloth, 3s.

EYTON, C.

NOTES ON THE GEOLOGY OF NORTH SHROPSHIRE. Fcap. 8vo, cloth, 3s. 6d.

FALCONER, HUGH, A.M., M.D.

PALÆONTOLOGICAL MEMOIRS OF. By CHARLES MURCHISON, M.D., F.R.S. Illustrated. Two Vols., demy, cloth, £2 2s.

FERN COLLECTOR'S ALBUM: A descriptive Folio for the reception of Natural Specimens; containing on the right-hand page a description of each Fern printed in Colours, the opposite page being left Blank for the Collector to affix the dried Specimen; forming, when filled, an elegant and complete collection of this interesting family of Plants. Size 11 3/4 in. by 8 1/2 in., handsomely bound, price One Guinea.

FLEISCHMANN, A., M.R.C.S.

PLAIN AND PRACTICAL MEDICAL PRECEPTS. Second Edition, revised and enlarged. On a large sheet, 4d.

FRY, HERBERT.

ROYAL GUIDE TO THE LONDON CHARITIES, 1876-7. Showing, in alphabetical order, their Name, Date of Foundation, Address, Objects, Annual Income, Chief Officials, &c. Crown 8vo, cloth, 1s. 6d.

GUIDE TO THE LANGUAGE OF FLOWERS. With Coloured Illustrations. 32mo, cloth, 1s.

HAMILTON, R., M.D., F.R.S.

THE NATURAL HISTORY OF BRITISH FISHES. With 72 Coloured Plates. Two Vols., fcap. 8vo, cloth, 9s.

The **NATURAL HISTORY of SEALS, WALRUSES, &c.** With 30 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

THE NATURAL HISTORY OF WHALES and other Cetaceæ. With 32 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

HANDY BOOK OF LONDON. An Easy and Comprehensive Guide to Everything Worth Seeing and Hearing. Royal 32mo, cloth, price 1s. New Edition annually.

HIEAPHY, THOMAS.

THE LIKENESS OF CHRIST. Being an Enquiry into the verisimilitude of the received likeness of our Blessed Lord. Edited by WYKE BAYLISS, F.S.A. Illustrated with Twelve Photographs Coloured as Facsimiles, and Fifty Engravings on Wood from original Frescoes, Mosaics, Pateræ, and other Works of Art of the first Six Centuries. Handsomely bound in cloth gilt, atlas 4to. Price to Subscribers before issue, £3 3s.

HOOKER, Sir W. J., F.R.S., and J. G. BAKER, F.L.S.

SYNOPSIS FILICUM; or, A Synopsis of all Known Ferns, including the Osmundaceæ, Schizæaceæ, Marratiaceæ, and Ophioglossaceæ (chiefly derived from the Kew Herbarium), accompanied by Figures representing the Essential Characters of each Genus. Second Edition, brought up to the Present Time. 8vo, cloth, £1 2s. 6d., plain; £1 8s., coloured.

HOWDEN, PETER, V.S.

HORSE WARRANTY: A Plain and Comprehensive Guide to the Various Points to be noted, showing which are essential and which are unimportant. With Forms of Warranty. Fcap. 8vo, cloth, 3s. 6d.

HOW TO ADDRESS TITLED PEOPLE. With Explanations of A.R.A., B.C.L., C.P.S., D.F., E.I.C.S., F.R.S.E., G.C.M.G., H.A.C., I.H.S., J.P., K.C.H., L.A.H., M.R.A.S., N.S., O.S., P.C., Q.E.D., R.I.P., S.S.C., T.S., U.S., V.C., W.S., X.T., and other Abbreviations (over 500), Academical, Ecclesiastical, Legal, Literary, Masonic, Imperial, and Ancient. A Companion to the Writing-desk. Royal 32mo, 1s.

HOW TO CHOOSE A MICROSCOPE. By a Demonstrator. With 80 Illustrations. Demy 8vo, 1s.

HUNTER, J., late Hon. Sec. of the Brit. Bee-keepers' Association.

A MANUAL OF BEE-KEEPING. Containing Practical Information for Rational and Profitable Methods of Bee Management. Full Instructions on Stimulative Feeding, Ligurianizing and Queen-raising, with descriptions of the best Hives and Apiarian Appliances on all systems. With Illustrations. Second Edition. Fcap. 8vo, cloth, 3s. 6d.

IDYLS OF THE RINK. Illustrated by G. BOWERS and J. CARLISLE. Royal 16mo, cloth gilt, 2s. 6d.

"A series of capital parodies on well-known poems, all exceedingly clever." —*Examiner.*

JARDINE, Sir W., F.L.S., F.R.S.

THE NATURAL HISTORY OF BRITISH BIRDS. With 120 Coloured Plates. 4 vols. Fcap. 8vo, cloth, 18s.

THE NATURAL HISTORY OF SUN BIRDS. With 30 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

THE NATURAL HISTORY OF HUMMING BIRDS. With 64 Coloured Plates. 2 vols. Fcap. 8vo, cloth, 9s.

THE NATURAL HISTORY OF GAME BIRDS. With 30 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

THE NATURAL HISTORY OF PHEASANTS, PEACOCKS, &c. With 29 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

THE NATURAL HISTORY OF LIONS, TIGERS, &c. With 34 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

THE NATURAL HISTORY of DEER, ANTELOPES, &c. With 33 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

THE NATURAL HISTORY OF SHEEP, OXEN, &c. With 31 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

THE NATURAL HISTORY OF MONKEYS. With 29 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

THE NATURAL HISTORY OF BEES. With 32 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

JARDINE, Sir W., F.L.S., F.R.S.
THE NATURAL HISTORY of the PERCH FAMILY.
 With 34 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

THE NATURAL HISTORY OF THICK-SKINNED QUADRUPEDS—Elephants, Rhinoceri, &c. With 30 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

JESSE, GEO. R.
RESEARCHES INTO THE HISTORY OF THE BRITISH DOG. With Original Anecdotes and Illustrations of the Nature and Attributes of the Dog. With 33 Plates, designed and etched by the Author. Two Volumes, demy 8vo, £1 12s.; India Proofs, £3 3s.

JEWITT, LLEWELLYN, F.S.A.
HALF-HOURS AMONG ENGLISH ANTIQUITIES.
 With numerous Illustrations. Crown 8vo, cloth, 5s.

JOHNSON, R. LOCKE, L.R.C.P., L.R.C.I., L.S.A., &c.
FOOD CHART, giving the Names, Classification, Composition, Elementary Value, rates of Digestibility, Adulterations, Tests, &c., of the Alimentary substances in general use. In wrapper, 4to, 2s. 6d. ; or on roller, varnished, 6s.

KEENE, JAMES, F.R.C.S.
DEFECTIVE HEARING: Its Curable Forms and Rational Treatment. Fourth Edition. Cr. 8vo, cloth, 2s. 6d.

KINAHAN, G. H.
THE HANDY BOOK OF ROCK NAMES. Fcap. 8vo, cloth, 4s.

LANKESTER, E., M.D., F.R.S., F.L.S.
OUR FOOD: A Course of Lectures delivered at the South Kensington Museum. Illustrated. New Edition. Crown 8vo, cloth, 4s.

THE USES OF ANIMALS in Relation to the Industry of Man: A Course of Lectures delivered at the South Kensington Museum. Illustrated. New Edition. Crown 8vo, cloth, 4s.

PRACTICAL PHYSIOLOGY: A School Manual of Health, for the Use of Classes and General Reading. Illustrated with numerous Woodcuts. Sixth Edition. Fcap. 8vo, cloth, 2s. 6d.

HALF - HOURS WITH THE MICROSCOPE: A Popular Guide to the Use of the Instrument. With 250 Illustrations. Twelfth Thousand, enlarged. Fcap. 8vo, cloth, plain 2s. 6d. ; coloured 4s.

*LANKESTER, E., M.D., F.R.S., F.L.S.***SANITARY INSTRUCTIONS:** A Series of Handbills for general Distribution.

1. Management of Infants.
2. Scarlet Fever, and the best Means of Preventing it.
3. Typhoid or Drain Fever, and its Prevention.
4. Small Pox, and its Prevention.
5. Cholera and Diarrhoea, and its Prevention.
6. Measles, and their Prevention.

Each, 1*d.*; per dozen, 6*d.*; per 100, 4*s.*; per 1,000, 30*s.**LANKESTER, MRS.***TALKS ABOUT HEALTH:** A Book for Boys and Girls; Being an Explanation of all the Processes by which Life is sustained. Illustrated. Small 8vo, cloth, 1*s.***A PLAIN and EASY ACCOUNT of BRITISH FERNS.**Together with their Classification, Arrangement of Genera, Structures, and Functions, Directions for Out-door and Indoor Cultivation, &c. Numerous Coloured Illustrations. Fcap. 8vo, cloth, 4*s.***WILD FLOWERS WORTH NOTICE:** A Selection of some of our Native Plants which are most attractive for their Beauty, Uses, or Associations. With Coloured Illustrations by J. E. SOWERBY. Fcap. 8vo, cloth, 4*s.**LE HARDY, ESTHER.***THE HOME NURSE:** A Manual for the Sick-room. Second Edition. Fcap. 8vo, cloth, 2*s. 6d.**LEIGHTON, REV. W. A., B.A., F.L.S., F.B.S. Edin.***THE LICHEN-FLORA OF GREAT BRITAIN, IRELAND, AND THE CHANNEL ISLANDS.** Second Edition. Fcap. 8vo, cloth, 16*s.***LONDON CATALOGUE OF BRITISH PLANTS.**Published under the direction of the London Botanical Exchange Club, adapted for marking Desiderata in Exchanges of Specimens; and for a Guide to Collectors, by showing the rarity or frequency of the several Species. Seventh Edition. 8vo, sewed, 6*d.**LORD, J. KEAST.***AT HOME IN THE WILDERNESS:** What to Do there and How to do it. A Handbook for Travellers and Emigrants. With numerous Illustrations of necessary Baggage, Tents, Tools, &c. &c. Second Edition. Crown 8vo, cloth, 5*s.**MACGILLIVRAY, W., F.R.S.***NATURAL HISTORY OF BRITISH QUADRUPEDS.**With 34 Coloured Plates. Fcap. 8vo, cloth, 4*s. 6d.*

MACKENZIE'S EDUCATIONAL SERIES.*Intended for Schools or Self-instruction.*

MACKENZIE'S TABLES: Commercial, Arithmetical, Miscellaneous, and Artificers'. Calculations in Bricklaying, Carpentry, Lathing, Masonry, Paper-hanging, Paving, Painting, Plastering, Slating, Tiling, Well-sinking, Digging, &c. &c. Fractions and Decimals. Forms of Receipts and Bills. Calculations on Man, Steam, Railways, Power, Light, Wind, &c. Language and Alphabets. Calendar of the Church. Scripture Money, Principal Foreign Moneys and Measures. Geographical and Astronomical Tables, &c. &c. Complete, 2d. ; cloth, 6d.

MURRAY'S ENGLISH GRAMMAR. Complete, word for word with the Shilling Editions. 2d.

MAVOR'S SPELLING. With numerous Woodcuts. 4d.

WALKINGHAME'S ARITHMETIC. Same as the Half-crown Edition. 4d.

SHORT-HAND. With Phrases and Exercises, to gain facility in the use of all the characters, by which perfection may soon be attained. 2d.

PHRENOLOGY Explained and Exemplified. 2d.

BOOKKEEPING by Single Entry, with Explanations of Subsidiary Books : Being a useful System for the Wholesale and Retail Shopkeeper. 2d.

MAIN, REV. R., F.R.S., V.P.R.A.S. "Radcliffe Observer."

MODERN PHILOSOPHIC SCEPTICISMS EXAMINED. Demy 8vo, cloth, 2s. 6d.

MANGNALL'S HISTORICAL & MISCELLANEOUS QUESTIONS. New Edition, carefully revised and brought up to the Present Time. Well printed and strongly bound. 18mo, cloth boards, 1s.

MARTIN, W. C. L.

The NATURAL HISTORY of HUMMING BIRDS. With 14 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

MICHOD, C. J., late Secretary of the London Athletic Club.

GOOD CONDITION : A Guide to Athletic Training, for Amateurs and Professionals. Small 8vo, cloth, 1s.

MICROSCOPICAL JOURNAL (THE). Transactions of the Royal Microscopical Society, and Record of Histological Research. Edited by HENRY LAWSON, M.D., F.R.M.S., Assistant Physician to, and Lecturer on Histology in, St. Mary's Hospital. Published Monthly. Demy 8vo, Illustrated, price 1s. 6d. Sixteen Volumes issued. Cloth, 10s. 6d. each.

MILTON, J. L., M.R.C.S.

THE STREAM OF LIFE ON OUR GLOBE: Its Archives, Traditions, and Laws, as revealed by Modern Discoveries in Geology and Palæontology. A Sketch in Untechnical Language of the Beginning and Growth of Life, and the Physiological Laws which govern its Progress and Operations. Second Edition. Crown 8vo, cloth, 6s.

MIVART, ST. GEORGE, F.R.S., V.P.Z.S., Lecturer on Zoology and Comparative Anatomy at St. Mary's Hospital.

MAN AND APES: An Exposition of Structural Resemblances and Differences bearing upon Questions of Affinity and Origin. With numerous Illustrations. Crown 8vo, cloth, 6s.

MONKHOVEN, D. VAN, Ph.D.

PHOTOGRAPHIC OPTICS, including the description of Lenses and Enlarging Apparatus. With 200 Woodcuts. Crown 8vo, cloth, 7s. 6d.

NAVE, JOHANN.

THE COLLECTOR'S HANDY-BOOK OF ALGÆ, DIATOMS, DESMIDS, FUNGI, LICHENS, MOSSES, &c. With Instructions for their Preparation and the Formation of an Herbarium. Translated and Edited by the Rev. W. W. SPICER, M.A. Illustrated with 114 Woodcuts. Fcap. 8vo, cloth, 2s. 6d.

NELSON, DAVID, M.D.

On the BEING and ATTRIBUTES of the GODHEAD, as evidenced by Creation. Demy 8vo, cloth, 10s. 6d.

NEWMAN, EDWARD, F.Z.S.

AN ILLUSTRATED NATURAL HISTORY OF BRITISH MOTHS. With Life-size Figures from Nature of each Species, and of the more striking Varieties; also full descriptions of both the Perfect Insect and the Caterpillar, together with Dates of Appearance and Localities where found. Super-royal 8vo, cloth gilt, 20s.

AN ILLUSTRATED NATURAL HISTORY OF BRITISH BUTTERFLIES. With Life-size Figures from Nature of each Species, and of the more striking Varieties, &c. &c. Super-royal 8vo, cloth, 7s. 6d.

The above Works may also be had in One Volume, cloth gilt, 25s.

NEWTON, JOSEPH, F.R.H.S.

THE LANDSCAPE GARDENER: A Practical Guide to the Laying-Out, Planting, and Arrangement of Villa Gardens, Town Squares, and Open Spaces, from a Quarter of an Acre to Four Acres. For the Use of Practical Gardeners, Amateurs, Architects, and Builders. With 24 Plans. Fcap. folio, cloth, 12s.

NOTES ON COLLECTING AND PRESERVING NATURAL HISTORY OBJECTS. Edited by J. E. TAYLOR, F.L.S., F.G.S., Editor of "Science Gossip." With numerous Illustrations. Crown 8vo, cloth, 3s. 6d.

Contents—Geological Specimens, by the Editor; Bones, by E. F. ELWIN; Birds' Eggs, by T. SOUTHWELL, F.Z.S.; Butterflies, by DR. KNAGGS; Beetles, by E. C. RYE, F.Z.S.; Hymenoptera, by J. B. BRIDGMAN; Fresh-water Shells, by Prof. RALPH TATE, F.G.S.; Flowering Plants, by JAMES BRITTON, F.L.S.; Trees and Shrubs, by Prof. BUCKMAN, F.G.S.; Mosses, by DR. BRAITHWAITE, F.L.S.; Fungi, by W. G. SMITH, F.L.S.; Lichens, by Rev. J. CROMBIE; Seaweeds, by W. GRATTAN.

PHILLIPS, LAWRENCE B., F.R.A.S.

THE AUTOGRAPHIC ALBUM: A Collection of 470 Facsimiles of Holograph Writings of Royal, Noble, and Distinguished Men and Women of Various Nations, &c. Small 4to, cloth, 12s.

POPULAR SCIENCE REVIEW: A Quarterly Summary of Scientific Progress and Miscellany of Entertaining and Instructive Articles on Scientific Subjects, by the Best Writers of the Day. **SECOND SERIES.** Edited by W. S. DALLAS, F.L.S., F.G.S. With high-class Illustrations by first-rate Artists. The **FIRST SERIES**, edited by DR. HENRY LAWSON, F.R.M.S., is Complete in 15 Volumes, fully Illustrated. Price in Parts, £7 12s. 6d.; in cloth gilt, £9 2s.; in half morocco, extra, £11 8s.

PROCTOR, RICHARD A., B.A.

HALF-HOURS WITH THE STARS: A Plain and Easy Guide to the Knowledge of the Constellations; showing, in 12 Maps, the position of the principal Star-groups, night after night throughout the Year, with Introduction and a separate Explanation of Each Map. **Seventh Edition.** Demy 4to, boards, 5s.

HALF-HOURS WITH THE TELESCOPE: A Popular Guide to the Use of the Telescope as a means of Amusement and Instruction. **Fifth Edition, Illustrated.** Fcap. 8vo, cloth, 2s. 6d.

QUEKETT MICROSCOPICAL CLUB, Journal of the Published Quarterly. Demy 8vo, price 1s. **Thirty-two Parts** are now issued.

RANSONNETT, BARON EUGENE DE.

SKETCHES OF THE INHABITANTS, ANIMAL LIFE, and VEGETATION in the LOWLANDS and HIGH MOUNTAINS OF CEYLON, as well as the Submarine Scenery near the Coast, taken in a Diving Bell. Illustrated with 26 large Chromo-lithographs. Folio, cloth gilt, £2 10s.

READE, T. M., C.E., F.G.S.

THE MOON AND THE EARTH: Being the Presidential Address to the Liverpool Geological Society, 1875. Illustrated with Two Photographs. Demy 8vo, sewed, 1s.

ROBSON, JOHN E.

BOTANICAL LABELS for Labelling Herbaria, adapted to the names in the London Catalogue of Plants and the Manuals of Professor BABINGTON and Dr. HOOKER, with Extra Labels for all New Species and Varieties recorded in the recent volumes of "The Journal of Botany" and the Exchange Club Reports. In all 3,576 Labels, with Index. Demy 8vo, 5s.

ROOPER, GEORGE, *Author of "Flood, Field, and Forest."*

A MONTH IN MAYO. Comprising Characteristic Sketches (Sporting and Social) of Irish Life, with Miscellaneous Papers. Crown 8vo, cloth, 2s. 6d.

THAMES AND TWEED: A Book for Anglers. Second Edition. Crown 8vo, cloth, 1s. 6d.

THE FOX AT HOME, and other Tales. With Illustrations by G. BOWERS and J. CARLISLE. Crown 8vo, cloth, 5s.

ROSS, JAMES, M.D.

ON PROTOPLASM: Being an Examination of Dr. JAMES HUTCHINSON STIRLING'S Criticism of Professor HUXLEY'S Views. Crown 8vo, cloth, 3s. 6d.

ROSS-OF-BLADENSBERG, JOHN, *Coldstream Guards.*

ENGLAND'S MARITIME RIGHTS. A Pamphlet on the Declaration of Paris. Demy 8vo, 1s.

RUSSELL, C.

THE TANNIN PROCESS. Second Edition, with Appendix. Fcap. 8vo, cloth, 2s. 6d.

SCHAIBLE, CHARLES H., M.D., Ph.D.

FIRST HELP IN ACCIDENTS: Being a Surgical Guide in the absence, or before the arrival, of Medical Assistance, for the use of the Public. Fully Illustrated. 32mo, cloth, 1s.

SCHLEIDEN, J. M., M.D.

THE PRINCIPLES OF SCIENTIFIC BOTANY; or, Botany as an Inductive Science. Translated by Dr. LANKESTER. Numerous Woodcuts, and Six Steel Plates. Demy 8vo, cloth, 10s. 6d.

SCHMIDT, ADOLPH, assisted by GRUNDLER, GRUNOW, JANECH, &c.

ATLAS OF THE DIATOMACEÆ. This magnificent work consists of Photographic Reproductions of the various forms of Diatomaceæ, on Folio Plates, with description (in German). Ten Parts are now ready. Price to Subscribers, for Twelve Parts, payable in advance, £3 12s. To be completed in about 25 parts.

SCHOMBURGK, R. H., M.D.

THE NATURAL HISTORY OF THE FISHES OF BRITISH GUIANA. With 66 Coloured Plates. Two Vols. Fcap. 8vo, cloth, 9s.

SCIENCE GOSSIP. A Monthly Medium of Interchange and Gossip for Students and Lovers of Nature. Edited by J. E. TAYLOR, F.L.S., F.G.S., &c. Price Fourpence, or by post Fivepence. 12 Volumes published, price 5s. each.

SELBY, P. J., F.R.S., F.L.S.

THE NATURAL HISTORY OF PIGEONS. With 30 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

THE NATURAL HISTORY OF PARROTS. With 30 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

SHARPE, W., M.D., Surgeon Army Medical Department.

MAN A SPECIAL CREATION ; or, The Preordained Evolution of Species. Crown 8vo, cloth, 6s.

SIMMONDS, P. L., Editor of the Journal of Applied Science.

WASTE PRODUCTS AND UNDEVELOPED SUBSTANCES : A Synopsis of Progress made in their Economic Utilization during the last Quarter of a Century at Home and Abroad. Third Edition. Crown 8vo, cloth, 9s.

SCIENCE AND COMMERCE : Their Influence on our Manufactures. A Series of Statistical Essays and Lectures describing the Progressive Discoveries of Science, the Advance of British Commerce, and the Activity of our Principal Manufactures in the Nineteenth Century. Fcap. 8vo, cl. 6s.

SMITH, DAVID, M.D.

LECTURES ON PRESERVATION OF SIGHT. Crown 8vo, 2s. 6d.

SMITH, LIEUT. COL. C. H.

THE NATURAL HISTORY OF DOGS. With 60 Coloured Plates. Two Vols. Fcap. 8vo, cloth, 9s.

THE NATURAL HISTORY OF HORSES. With 35 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

SMITH, LIEUT. COL. C. H.

THE NATURAL HISTORY OF MAMMALIA. With 30 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

THE NATURAL HISTORY OF MAN. With 34 Plates. Fcap. 8vo, cloth, 4s. 6d.

SMITH, J., A.L.S., late Curator of the Royal Gardens, Kew.

FERNS, BRITISH AND FOREIGN: Their History, Organography, Classification, Nomenclature, and Culture; with Directions showing which are the best adapted for the Hothouse, Greenhouse, Open Air Fernery, or Wardian Case. With an Index of Genera, Species, and Synonyms. Third Edition, revised and greatly enlarged, with new Figures, &c. Crown 8vo, cloth, 7s. 6d.

SMITH, WORTHINGTON, F.L.S.

MUSHROOMS AND TOADSTOOLS: How to Distinguish easily the Difference between Edible and Poisonous Fungi. Two large Sheets, containing Figures of 29 Edible and 31 Poisonous Species, drawn the natural size, and Coloured from Living Specimens. With descriptive letterpress, 6s. ; on canvas, in cloth case for pocket, 10s. 6d. ; on canvas, on rollers and varnished, 10s. 6d. The letterpress may be had separately, with key-plates of figures, 1s.

SMOKER'S GUIDE (THE), PHILOSOPHER AND FRIEND. What to Smoke—What to Smoke With—and the Whole "What's What" of Tobacco, Historical, Botanical, Manufactural, Anecdotal, Social, Medical, &c. By a Veteran of Smokedom. Royal 32mo, cloth, 1s.

SOWERBY, J.

ENGLISH BOTANY. Containing a Description and Life-size Drawing of every British Plant. Edited and brought up to the Present Standard of Scientific Knowledge, by T. BOSWELL SYME, LL.D., F.L.S., &c. With Popular Descriptions of the Uses, History, and Traditions of each Plant, by Mrs. LANKESTER. Complete in 11 Volumes, cloth, £22 8s. ; half morocco, £24 12s. ; whole morocco, £28 3s. 6d.

STABLES, W., M.D.

MEDICAL LIFE IN THE NAVY. Being the experiences of a Naval Surgeon described for non-professional readers. Fcap. 8vo, cloth, 2s. 6d.

STEVENSON, G. de ST. CLAIR.

ALSACE AND LORRAINE, Past, Present, and Future. With an Illustration by F. W. LAWSON. Demy 8vo, cloth, 4s.

SWAINSON, W., F.R.S., F.L.S.

THE NATURAL HISTORY OF THE BIRDS OF WESTERN AFRICA. With 64 Coloured Plates. 2 vols., fcap. 8vo, cloth, 9s.

THE NATURAL HISTORY OF FLYCATCHERS. With 31 Coloured Plates. Fcap. 8vo, cloth, 4s. 6d.

SYMONDS, Rev. W. S., Rector of Pendock, Author of "Stones in the Valley," &c.

OLD BONES; or, Notes for Young Naturalists. With References to the Typical Specimens in the British Museum. Second Edition, much improved and enlarged. Numerous Illustrations. Fcap. 8vo, cloth, 2s. 6d.

TATE, Professor RALPH, F.G.S.

BRITISH MOLLUSKS; or, Slugs and Snails, Land and Fresh-water. A Plain and Easy Account of the Land and Fresh-water Mollusks of Great Britain, containing Descriptions, Figures, and a Familiar Account of the Habits of each Species. Numerous Illustrations, coloured by hand. Fcap. 8vo, cloth, 6s.

TAYLOR, Rev. ISAAC, M.A., Author of "Etruscan Researches."

THE ETRUSCAN LANGUAGE. Illustrated. Second Edition. Demy 8vo, sewed, 1s.

TAYLOR, J. E., F.L.S., F.G.S., Editor of "Science Gossip."

HALF-HOURS IN THE GREEN LANES. A Book for a Country Stroll. Illustrated with 300 Woodcuts. Third Edition. Crown 8vo, cloth, 4s.

HALF-HOURS AT THE SEA SIDE; or, Recreations with Marine Objects. Illustrated with 250 Woodcuts. Third Edition. Crown 8vo, cloth, 4s.

GEOLOGICAL STORIES: A Series of Autobiographies in Chronological Order. Numerous Illustrations. Third Edition. Crown 8vo, cloth, 4s.

THE AQUARIUM; its Inhabitants, Structure, and Management. With 238 Woodcuts. Crown 8vo, cloth extra, 6s. (See also NOTES ON COLLECTING AND PRESERVING NATURAL HISTORY OBJECTS.

TRIMEN, H., M.B. (Lond.), F.L.S., and DYER, W. T., B.A.

THE FLORA OF MIDDLESEX: A Topographical and Historical Account of the Plants found in the County. With Sketches of its Physical Geography and Climate, and of the Progress of Middlesex Botany during the last Three Centuries. With a Map of Botanical Districts. Crown 8vo, cloth, 12s. 6d.